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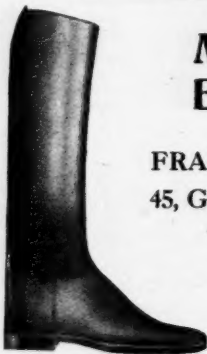
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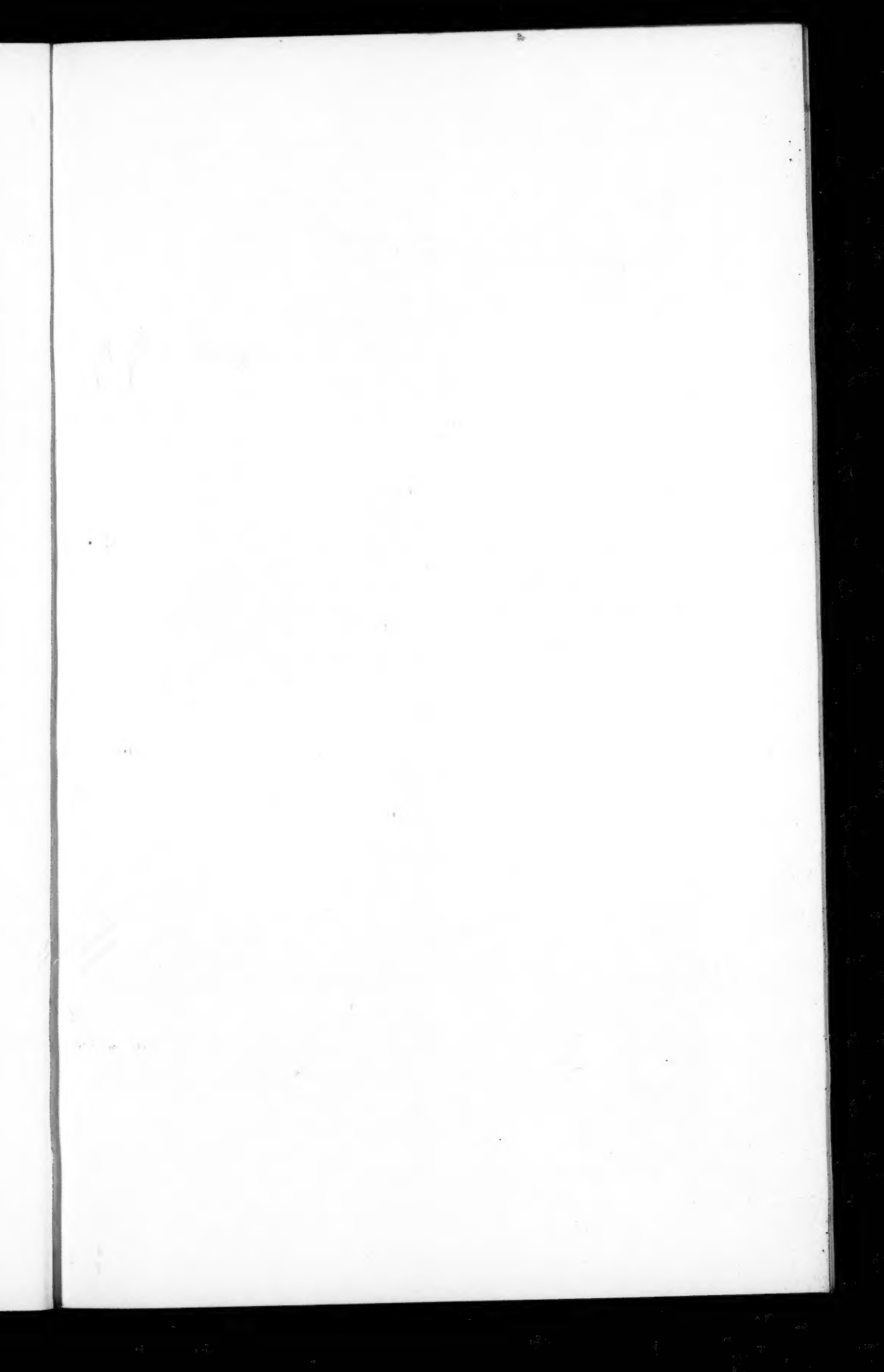
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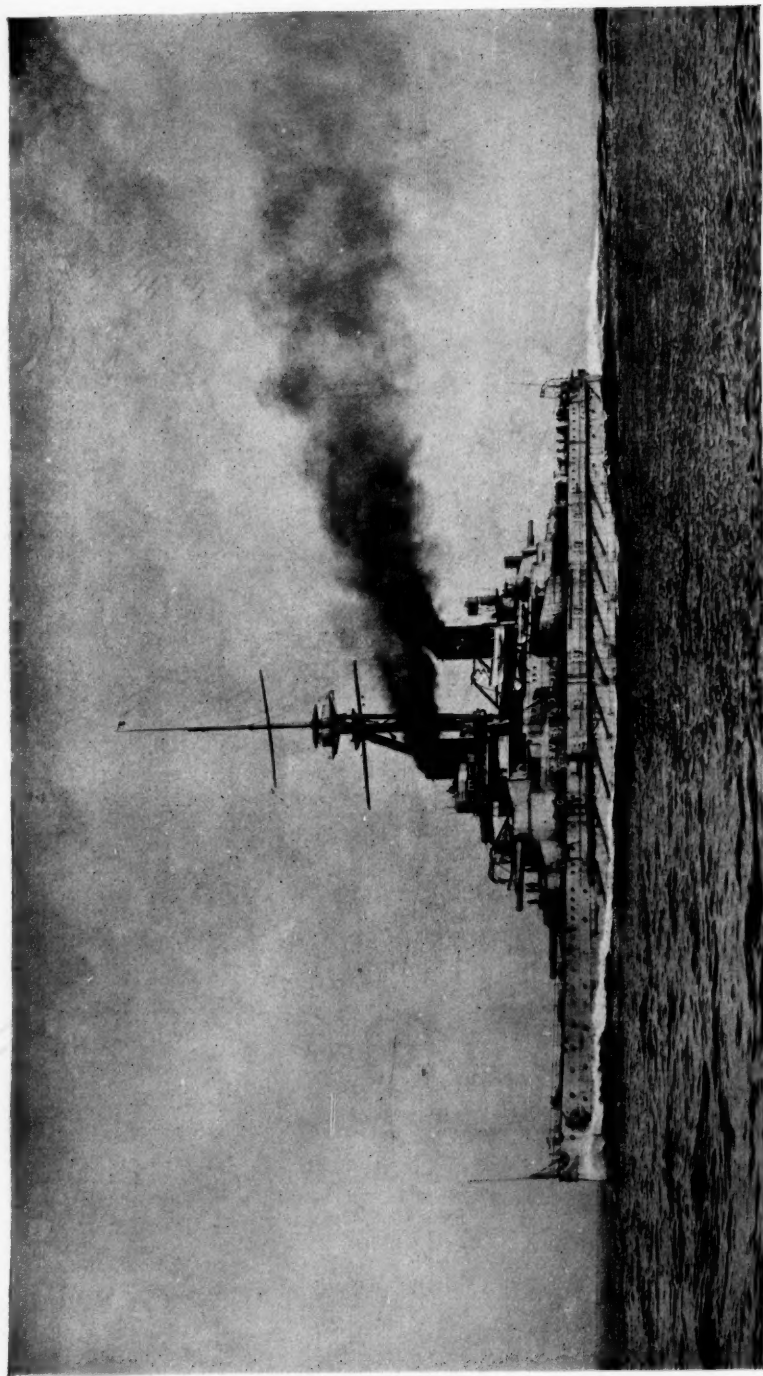
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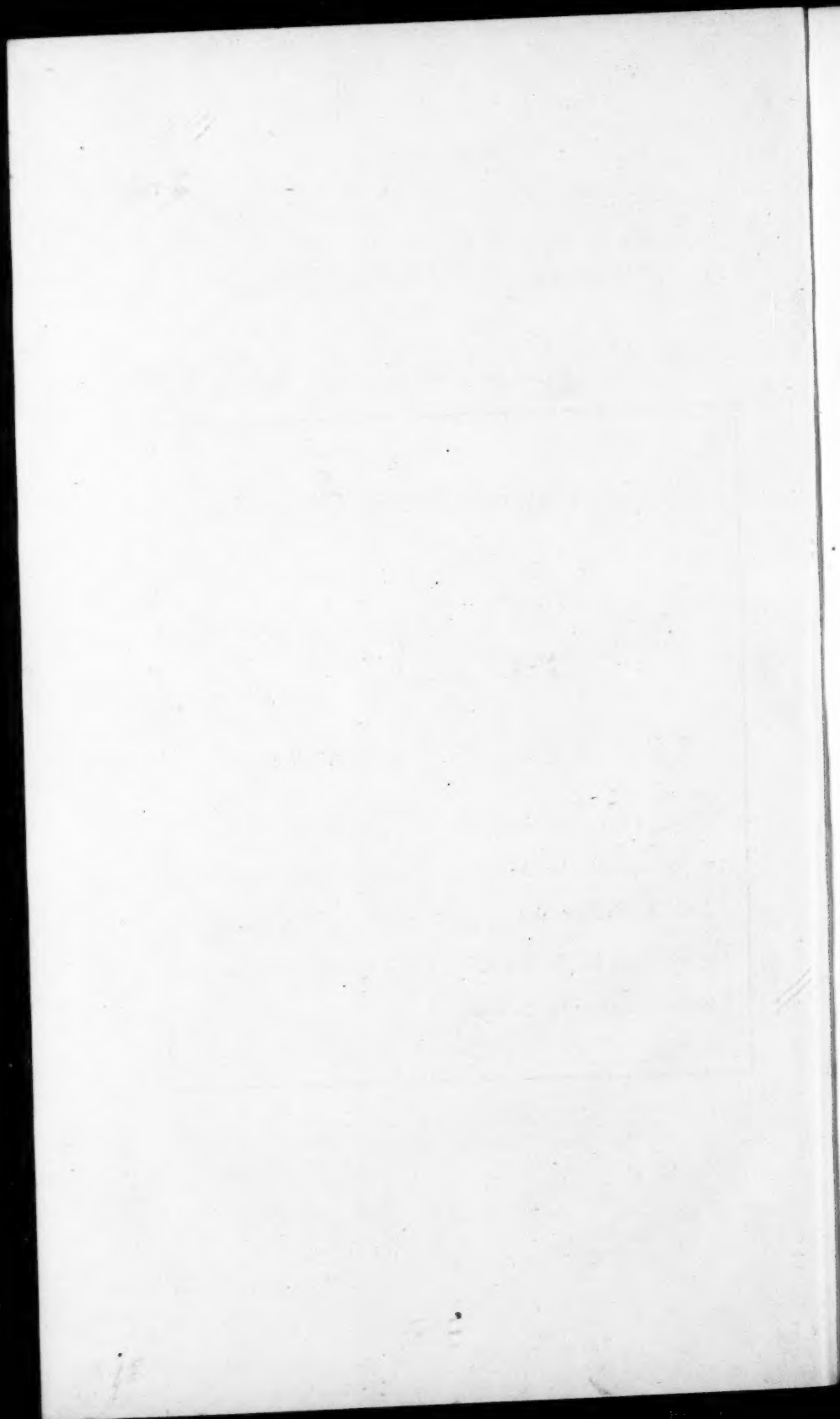
FORM OF BEQUEST.

I Bequeath to THE ROYAL UNITED SERVICE INSTITUTION

the sum of £ _____ (free of duty),
or (in case of a specific legacy) my _____ (free of duty),

to be applicable for the general purposes of such Institution.

And I Declare that the receipt of the Secretary, or other proper officer for the time being of such Institution, shall be a sufficient discharge for the same.



THE JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION.

VOL. LIV.

MARCH, 1910.

No. 885.

[Authors alone are responsible for the contents of their respective Papers.]

SECRETARY'S NOTES.

I. ROYAL VISITS.

Their Majesties the King and Queen, accompanied by H.R.H. Prince Henry of Prussia, honoured the Institution by a visit to the Museum on Wednesday, 16th February. H.R.H. the Princess of Wales, T.S.H. the Duke and Duchess of Teck, and Prince Alexander of Teck attended the lecture delivered by Sir George Arthur on Wednesday, 2nd March, and afterwards inspected some old Atlases from the Map Room and a collection of autograph letters of Prince Rupert, subsequently paying a short visit to the Museum.

II. COUNCIL.

At the Anniversary Meeting held on Tuesday, 1st March, the following officers were appointed to the vacancies on the Council:—

Admiral-of-the-Fleet the Lord Walter Kerr, G.C.B.
Rear-Admiral the Hon. A. E. Bethell, C.M.G.
Major-General Sir T. Fraser, K.C.B., C.M.G.
Colonel J. H. Bor, C.M.G., A.D.C., R.M.A.

It is regretted that General Sir W. P. Wright, K.C.B., should have been described in the last issue as late R.M.L.I., this officer being still on the Active List.

III. OFFICERS JOINED.

The following officers joined the Institution during the month of February:—

Captain W. H. F. Weber, R.F.A.
Major R. D. Marjoribanks, Indian Army.

Second-Lieutenant O. C. S. Watson, 1st County of London Yeomanry.

Lieutenant V. de Hoghton, Lincolnshire Regiment.

Lieutenant J. M. R. Ford, Indian Army.

Captain J. C. Robertson, Royal Fusiliers.

Captain C. F. Hawley, K.R.R.C.

C. Erskine, Esq., late Lieutenant 24th Regiment.

Lieutenant C. W. G. Walker, Indian Army.

Commander B. H. Smith, R.N.

Captain G. C. M. Sorel-Cameron, Cameron Highlanders.

Second-Lieutenant E. H. W. Foot, Royal Monmouthshire R.R.E.

Lieutenant M. E. Highton, R.N.

Captain R. H. Johnson, R.F.A.

Captain G. W. S. Sherlock, Indian Army.

Lieutenant A. Gilbert, R.N.

Second-Lieutenant S. R. Field, R.F.A. (T.F.).

Major J. H. A. Ivens, V.D., United Provinces Horse.

Captain A. G. Troup, R.M.A.

Captain B. A. B. Butler, R.F.A.

IV. GOLD MEDAL ESSAY, 1909.

Only two Essays were submitted; neither of these being of sufficient excellence, the Council decided not to award the Gold Medal and Trench-Gascoigne Prizes. The Essay written by Captain R. F. Jelley, R.E., has been awarded a special honorarium of twenty guineas.

The Referees were:—

Major-General E. C. Bethune, C.V.O., C.B.

Brigadier-General R. C. B. Haking.

Colonel F. I. Maxse, C.V.O., C.B., D.S.O.

V. ANNUAL REPORT.

The Annual Report and Accounts, together with the Proceedings of the Anniversary Meeting, will be issued with the April number of the JOURNAL.

VI. LECTURES.

Lieut.-General Sir R. S. S. Baden-Powell, K.C.B., K.C.V.O., will preside at the lecture to be delivered by Major Sir A. Bannerman, Bart., R.E., on Wednesday, 6th April, at 3 p.m., on "The Creation of the Japanese National Spirit."

VII. JOURNAL INDEX. VOLS. I. TO X.

The Librarian would be greatly obliged if members having copies of the above, and not requiring them, would kindly present them to the Library, as they are urgently required.

VIII. MILITARY HISTORY LECTURES.

The course of Military History Lectures on "The American War of Secession," the subject for the Army Promotion Examination to be held in May, will take place as usual. The lecturer will be Dr. Miller Maguire. The fee for the course is one guinea for members of the Institution and two guineas for non-members. The dates of the Lectures, which will be at 4 p.m., will be as follows:—

Tuesday, April 19.	Friday, April 22.
Tuesday, April 26.	Friday, April 29.
Tuesday, May 3.	Friday, May 6.
Tuesday, May 10.	Friday, May 13.

Application to attend, enclosing the fee, to be made to the Secretary, Royal United Service Institution, Whitehall, S.W.

IX. CORRESPONDENCE.

Officers when communicating officially with the Institution are requested to sign their names with their rank, as there are several instances of officers bearing the same name and initials.

X. ADDITIONS TO THE MUSEUM.

- 6062. Shako and Cock's Plume, as worn by the London Rifle Brigade (5th Bn. London Regiment) from the year 1859.
Given by the Officers, London Rifle Brigade.
- 6063. Shoulder-Belt Plate of the Royal East Perth Local Militia.
Purchased.
- 6064. Shoulder-Belt Plate of the 1st Devon Local Militia.
Purchased.
- 6065. Shoulder-Belt Plate of the 1st Jersey Militia.—*Purchased.*
- 6066. Shako Plate worn by Officers of the Infantry between the years 1800-12.—*Purchased.*
- 6067. Large Painting in Oils of the Charge of the Heavy Cavalry Brigade at Balaclava, 25th October, 1854. Painted and bequeathed by Major-General Sir Alexander Elliot, K.C.B. who participated in the charge with the 5th Dragoon Guards.
- 6068. A Statue of a Zulu Warrior. Executed and bequeathed by Major-General Sir Alexander Elliot, K.C.B.

XI. LETTERS.

Officers are reminded that the Council can accept no responsibility in the matter of letters addressed to them at the Institution, there being no arrangements for the reception and forwarding of members' letters.

XII. CHANGE OF ADDRESS OR RANK.

Notification of change of address or rank must reach this Office not later than the 7th of the month for correction for the following JOURNAL. Members are reminded that it is essential that such changes should be made in writing; if these changes are not notified, members will themselves be responsible if their JOURNAL fails to reach them through being wrongly addressed.

XIII. ADMISSION TO LECTURES.

Members are reminded that they are able to introduce only two visitors to each Lecture. When the member does not attend himself, it is necessary that visitors should hand in his visiting card at the entrance.

XIV. NEW MEMBERS.

A form is inserted in this JOURNAL, and will be repeated regularly, for the benefit of those officers who may wish to join the Institution. The filling up of the form and its transmission to the Secretary is all that is necessary in the case of officers on the Active List. The Council hope that members will circulate the forms.

IX. CORRESPONDENCE

Officers when communicating officially with the Institution are requested to sign their names with their rank, as there are several instances of officers bearing the same name and initials.

X. ADDITIONS TO THE MUSEUM.

- 6001. Shako and Cock's Plume, as worn by the London Rifle Brigade, 1851-1852. (Presented by the Officers, London Rifle Brigade, 1851-1852.)
- 6002. Shoulder-Belt Plate of the Royal East Devon Local Militia. Purchased.
- 6003. Shoulder-Belt Plate of the 1st Devon Local Militia. Purchased.
- 6004. Shoulder-Belt Plate of the 1st Jersey Militia. Purchased.
- 6005. Shako Plate worn by Officers of the Infantry between the years 1800-1812. Purchased.
- 6006. Large Painting in Oil of the Charge of the Heavy Cavalry Brigade at Balaklava, 25th October, 1854. Painted and bequeathed by Major-General Sir Alexander Elliot, K.C.B., who participated in the charge with the 5th Dragoon Guards.
- 6007. A statue of a Zulu Warrior. Executed and bequeathed by Major-General Sir Alexander Elliot, K.C.B.

XI. LETTERS

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XII. CHANGE OF ADDRESS OR RANK.

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NATIONAL RECUPERATION.

By T. MILLER MAGUIRE, M.A., LL.D. (Barrister-at-Law,
Inner Temple).

On Wednesday, 26th May, 1909.

Colonel LONSDALE HALE in the Chair.

"To all nations war is a great matter. Upon the army death or life depends. It is the means of the existence or destruction of a State; therefore, it must be diligently studied."—*Sun, the Chinese Master.*

"The Kingdom of Heaven is compared not to any great kernel or nut, but to a grain of mustard seed."—*Bacon.*

"Degenerate arts and shifts whereby many counsellors and governors gain both favour with their masters and estimation with the vulgar, deserve no better a name than fiddling."—*Bacon.*

"Neither is money the sinews of war if the sinews of men's arms in base and effeminate people are failing."—*Bacon.*

"No nation which does not directly profess arms, may look to have greatness fall into its hands."—*Bacon.*

"To be masters of the sea is an abridgment of a monarchy."—*Bacon.*
[But sea power alone never gave security to any Empire in any age.]

"Let any Prince think soberly of his forces except the Militia of his natives be of good and valiant soldiers."—*Bacon.*

"Let no nation expect to be great that is not awake upon any just occasion of arming."—*Bacon.*

"The causes of defeat come from within."—*Sun, the Chinese Master.*

"Nought can make us rue if England to herself do rest but true."—*Shakespeare.*

"In regard to war, wise expense is true economy."—*Pitt, Earl of Chatham.*

"In the fall of Venice, think of thine, despite thy watery wall."—*Byron.*

THERE is nothing left for me but to obey the orders of the gallant Chairman, who is in himself a striking example of one of the truths which I propose to set forth in the lecture, which is that individuals and nations can soon recover if they have good spirits from the effects of the most terrible individual and national misfortunes. They can rejuvenate themselves, and they can renew their youths as the Phoenix; and under special adversities, or perhaps, stranger still, in spite of prosperity, they can grow more and more after each fall like the ancient hero when he touched his mother Earth. You have before you an example in your Chairman of this rejuvenescence. Colonel Lonsdale Hale, in many respects—I say it in his presence—having attained a ripe maturity of years and intellect, is the youngest man in the room. I have been indebted to him for very nearly 30 years for examples and for lessons and for wisdom in regard to the art of war. For the same period, or perhaps for a longer period, the British Army has also sat at his feet. It is really to me a very great honour indeed to feel that I am allowed to address you on this most important subject, relating to the future of your race, in the presence of a man whose opinion on military matters would be acceptable in any audience in Europe—of that I am well assured.

Now in my former lecture I was taking up a somewhat risky and lugubrious text, because on that occasion I had to prove my position, which was that the most tremendous disasters invariably follow to any nation which was lulled into false security by the words of what is now called anti-militarism or humanitarianism or peace-at-any-price, or who heeds the words of any other doctrine of philosophy, except the old Scriptural doctrine that the strong man armed is the only security of the family or of the State, and the Roman doctrine that if you want to preserve peace or covet honour or empire, or hope for family felicity or personal honour and distinction, you must be always ready to take up the burden of fighting when it is forced upon you. On the last occasion we set forth, if you will remember, cases in which nations were not ready, with the results of misery to the women and dishonour to the men of the race, material losses, and the limitation of the resources and prospects of the future of the race. It did not make the slightest difference what the race was. The same thing occurred again and again. The gallant Colonel who presides, not only is in himself as an individual an example of recuperation and rejuvenescence, but has also shown in books that in spite of disasters, provided the heart is good, all men and nations can recuperate, provided they have the sense of honour, provided they have a Bushido as the Japanese, whose books are on the table, call it, or chivalry or courage, even diabolical courage, "never to submit or yield, or, what is more, not to be overcome"—I say the gallant Colonel, especially in the last of his works, "The People's War," has given an extraordinary example of national recupera-

tion almost improvised, although ultimate defeat was not avoided, in the case of France. He describes what occurred in France after the following terrible incidents:—After Strasburg had fallen, after five terrible defeats, after one great army had been taken prisoner at Sedan, after another and greater army had been shut up in Metz, after the Capital of the country had been invested, and when its people were starving—men, women and children. Notwithstanding all this, Gambetta escaped in a balloon, his eloquence and spirit of chivalry prevailed with France, and immediately there was a rising in every direction. Faidherbe at Amiens, Chanzy at Le Mans, and unfortunate officers like Bourbaki between Besançon and Belfort. The nation sprang forth armed. It is a good lesson, as I think you, Mr. Chairman, must admit; and it was an attempt at any rate of a very honourable kind. As far as the strategy went, it was a wonderful recuperation. As far as concerned the danger to the Germans, if they had not had marvellous resources and extraordinary skill, and a splendid brain power, the result, I think I am right in saying, would have been disastrous. That is an example quite within our time of a great national disaster and recuperation.

Before dealing with this particular recuperative energy, especially as developed in our own nation, I want to point out certain matters which must necessarily prevent our nation from evolving in a near crisis any qualities of a very high order—certain matters in connection with our nation which, if they are not dealt with forthwith, must result necessarily in the ruin of our people. These are principally three terrible and glaring evils, any one of which would take the whole of the rest of the evening, and the correction of any one of which would be a blessing to everyone in the land. An elevation would immediately occur if you could do three things, and you certainly ought to be able to begin to do them almost forthwith. I can produce evidence to prove all this, if you do not take the advice set forth in the *précis*. That advice is supported—because I have got the very words of others, not my own; as on the last occasion, every doctrine that I set forth I propose to base on the opinion of others—men of recognised eminence and men of immortal faith and immortal wisdom.

2. The three curses of this nation at the present moment are the fact that sport, not legitimate sport, but spurious sport, gambling sport, spectacular games, looking at other people exercising instead of exercising ourselves, is practically almost the life of the nation. There is more attention paid to that than to anything else whatsoever. Lord Bacon in his essay on “True Greatness of Kingdoms and Estates,” and in others of his essays, sets forth this, that “every man profiteth in that he most intendeth.” If a man devotes his energies to things with which he has no sympathy, or in regard to which he has no keen ambition—I

do not mind whether he is forced to them or not—his mind becomes very much of a stranger to himself. When a man has to select any career or profession for which he has no heart, he never will succeed in either that career or that profession. When a nation devotes body and soul to looking at games and to gambling, when its whole excitement is boyish games, games of ball, and when you get 100,000 persons willing to spend money and time and to be crushed and hurt again and again in order to see some cricketer or some football hero, whilst you cannot get 10,000 men of the same age to put on a uniform, when out of that 100,000 you cannot get 10,000 of them to go and parade before the Lord Mayor, whereas their ancestors, under similar circumstances, at their own expense—and not after coaxing and not after being almost embraced to go, and graced by ladies and given prizes and £10,000 recruiting money, and all kinds of things, as you see in the newspapers—whereas they went at their own expense a hundred years ago, three times in number out of one-fourth the population, there must be something very wrong now. This worship at the shrine of sports and games must cease, or your nation will perish. You cannot have everything. The young men of your race cannot go on devoting themselves to these silly fooleries and cope either in commerce or in war, or by sea or by land, with young men who take as much physical exercise, or more physical exercise, who are just as hardened by gymnastics, but who, at the same time, cultivate their minds and have more learning and more science, and also, at the same time, cultivate their patriotism, and to a man know how to fight for their country and to speak with their enemy in the gate. You are beaten already if this kind of thing goes on.

I read about fantastic scares about the progress of Germans and others. b. All Germany put together, all Germany and Russia put together, all Germany, Austria, Russia and Italy put together, could do nothing to your Empire or to your trade, nothing whatever, if you are true to yourselves; whereas it is mathematically demonstrable, and Lord Bacon pointed it out clearly in the dictum, which is at the top of that Navy League map if you can see it, that "the wealth of both Indies seems in great part but an accessory to the command of the sea." So wrote Lord Bacon. "Command of the sea is now," he wrote in the year 1612, "one of the principal dowries of this kingdom of Great Britain." We have kept the command till now. If you had a sufficient and efficient Navy manned by sufficient and efficient sailors in the 16th century, in the 17th, the 18th, and the 19th, how on earth could Lord Bacon's dictum fail to apply—that the command of both the Indies, that is to say, the East Indies and the West Indies (which would include in his days not merely Canada and the Islands, but also that part of the Empire which has gone, the United States)—that the command of both the Indies is incidental to the command

of the sea. That is one doctrine. Again, Lord Bacon quoted Themistocles at a time when Greece fought the battle of Salamis, when

"A king stood on the rocky brow that looks o'er seaborne Salamis,
And ships in thousands lay below, and men in nations—all were his.

He counted them at break of day, and when the sun set where were they?"

Gone—destroyed! Themistocles set forth an opinion, which was repeated by Cicero, in connection with the war between Pompey and Cæsar, and which was endorsed in the days of Queen Elizabeth by Bacon. That opinion is this: that he who possesses the sea—especially when "he" is an island—possesses everything. The command of the sea is but an epitome of monarchy. He that hath command of the sea can not only stand on the defensive, but can, as happened exactly a hundred years ago, assume the offensive where he pleases. That is well put by your illustrious sage, Bacon, who gives you a history of the rise and fall of great communities, the decadence and recuperation of States, and who sets forth all this doctrine most clearly; and, in fact, all Gibbon's great book is only an expansion of one of Bacon's Essays. He who has command of the sea can "take as much or as little of the war" as he pleases. Now a hundred years ago you did so, not because you thought betting on racing one of the highest occupations of the human soul—although you had your horses, and they were good breeds of horses—and not because you thought betting on football a fine thing for gentlemen and scholars at the universities, or betting on whether Mr. Fry or Mr. Trumper was in good form. I say that a hundred years ago, at a time when the international relations of our nation were very critical, we were able to put a force at the mouth of the Scheldt. There were unfortunate results to that expedition, I know. I do not mind whether an expedition is fortunate or unfortunate. States, like individuals, must have times of prosperity and times of adversity. Prosperity, indeed, as our Chairman, the gallant Colonel, will probably be able to tell you, for he has more experience of life than I have, and has seen many people failing—"Prosperity doth best discover Vice, but Adversity doth best discover Virtue"—for States as well as individuals. But they sent a mighty expedition in 1809 to Walcheren, consisting of 35 ships of war and 200 other vessels, and 40,000 soldiers. They did not do much. There was disagreement between the commanders:—

"Lord Chatham, with his sword full drawn,
Kept waiting for Sir Richard Strachan;
Sir Richard, longing to be at 'em,
Was waiting for the Earl of Chatham."

Between the two they did little. I am only showing you how your nation has, as Themistocles said, the power of taking as much or as little of the war as it pleased. But that was not all you did. Napoleon passed the Pyrenees, he entered Madrid, and Junot, his marshal, entered Lisbon. We saw the other day in this hall how Sir John Moore, based on the sea, because we had absolute control of the sea, was able to stop Napoleon and to turn his attention to other things. Sir Arthur Wellesley came, and then began that long career in which the British Army, based on the sea, was the ulcer which wore out the strength of Napoleon. But that was not all. We were not only recuperating ourselves, in spite of that unfortunate incident up in Belgium, but starting on a new career of glory in another part of the world, whilst we maintained our own here against any and every combination of States. We were able a few years later to go and sack, or at any rate to capture, Washington.

We appeared on every sea. As Mr. Pitt (who died in 1806) said: we not only saved England by our courage, but we got command of the sea at Trafalgar in 1805, and we saved Europe by our example. The energy of this race was not confined to its own expeditions, but it was the cause of recuperation in others.

All a great State requires in adversity is time to develop its resources. It may apparently be overwhelmed by disaster, but this will not be for long; it must rise again, if it has energy of soul. We will prove that as we go along. Just look at what England did a hundred years ago, between 1805 and 1815—I am only going to point out a very few incidents—when its population was 18 millions, when the Irish part of its population was certainly as troublesome as it is now, if not more so, when the capital of the country was only £1 as compared to the £4 that it is now, when you had not a Manchester School of Political Economy, with a political economy which, in my opinion, is the greatest curse that ever was devised, and at any rate when you had not that low worship of wealth or the wealth to worship. Then you were able not only to have command of the sea, to put expeditions on every shore, to take as much or as little of the war as you pleased, but you were able to aid other nations. In the year 1805 Austria was bent and broken, but brighter times soon turned up again, and the great Austrian monarchy is not done with yet. The Austrian monarchy has been heard of recently again. The people of Serbia know something about it, the people of Bosnia know something about it, and very possibly the people of Roumania may know something about it. Very possibly the lines of German trade, shown on this map extending to the Mediterranean, may be a link with Vienna, and a great part of all this vast mass of wealth in South and South-Eastern Europe may pass to Bremen, Hamburg and other central European ports. At any rate, Austria

has recuperated. One hundred and four years have passed nearly, and Austria is playing a leading part in the East now.

Following upon the defeat of Austria by that myriad-minded officer, Napoleon, in 1806 Prussia moved. On 7th October Napoleon was on the Maine, and on 14th October he was at Jena, where he thoroughly defeated the Prussians, and Davoust was at Auerstädt on the same day. A few days later, he was across the Elbe, and on 27th October he was in Berlin. A few days later he was at Stettin, and one of his lieutenants was at Lübeck. On 6th November the whole Prussian monarchy was down, overwhelmed by appalling disaster. England did not make peace, notwithstanding the fall of Austria, its ally, and notwithstanding the ruin of Prussia. Nor did Prussia give in. Where is Prussia now? Is Prussia an inferior State now? How does it come that Prussia has recovered? How does it come that that very Prussian army which on 6th November, 1806, was nothing, by the year 1813 was at Leipzig, by the year 1814 was in Paris, and by the year 1815 was at Waterloo, and in Paris again?

I think I have give enough examples of the recuperative energy, not only of England but of Austria and of Prussia. But who was the guide, the example and the friend of Austria and of Prussia; who supplied the money; who kept the game going all through; who gave the funds to Austria to fight the enemy in 1809 and to get peace? Napoleon left Spain on 1st January, and came right across Europe, being in Vienna again in May, just about a hundred years ago. England supplied the money; England maintained the coalition; England's Navy protected its forces wherever they went; British energy kept building up Colonies; and English example and English money were what enabled Prussia and Austria thus to recover themselves.

Are there any signs that England may not be able to continue this business in the future? There are. What did Mr. Trollope, the well-known Vicar of an East-end Parish, tell us the other night at the Socialistic Club in Maiden Lane? I suppose very few of the people here go there, but I believe in gaining knowledge in every quarter, and one learns a good deal there about the by-paths of humanity; in fact, one learns a good deal outside public houses holding children for mothers on Saturday night—one learns a good deal about the woes of humanity, and of the future of the race too—and a very poor future it is for many of the race. Mr. Trollope told us that there is more misery and wretchedness and poorer children and worse-fed children in his parish in Poplar (in London) than there are among the whole thirteen millions of Koreans—and Korea is not a model Eastern State.¹ I see this is a revelation for you!

¹ Mr. Trollope was for eleven years Chaplain to the Bishop of Korea before taking up parochial work in the East of London.

But certainly you will not be able to maintain fully the prestige of a hundred years ago if the Irish are degenerate. I was saddened to the last degree by reading the proceedings of the Royal Academy of Medicine in Dublin, in the *Lancet* of 22nd May, from which it appears that the degeneration of a large portion of the Irish would prevent them from repeating their performances of one hundred years ago, when the backbone of many a British regiment in the Peninsula was composed of Irishmen; even as the depopulation of the Highlands will prevent you from having such men in the Highland regiments or the Scottish regiments.

The people described in the papers I have here before me are not fit for soldiers. These people are the sons and daughters of the mothers, the record of whose lives I have here, in Glasgow, and in Dundee, and in Manchester—with many of whom in Manchester I have mixed—whose toothless mouths I shrank from, almost by the thousand in Lancashire crowds, who are manifestly and obviously housed in such a manner and in such districts that they can by no conceivable possibility bear a commanding race or a race of daughters fit to continue the race. These are scandals that did not exist a hundred years ago to the same extent. They have come in with the factory system, and they were described some forty years ago by Lord Shaftesbury and others. The Bishop of London recently, in the Duke of Westminster's house in Upper Grosvenor Street, told us distinctly what we must expect, having regard to the luxury which is described every morning in the *Daily Chronicle* in its Personal Column. I am very much indebted to the fashionable columns of the Liberal Press; I read all of it purposely in order to get these facts, showing the state of atrocious, sinful, useless display in luxury repeated continually, while you have misery outside; display not only by the frivolous children of fashion, as you may call them, although, indeed, they are better than many others, but by political hostesses, with Cabinet Ministers full of humanitarianism in their speeches, setting sybarite examples. These facts, which are described every day in the *Daily Chronicle*, sink into one's soul, especially when one knows what is going on according to the Bishop of London and Mr. Parnell, and every lawyer and every ecclesiastic and every doctor who studies these matters. Therefore, if you are to be in 1915—it now being 1909—in the same position as your predecessors started from in 1809, and attained in 1815—you must all of you forthwith study the Bishop of London's speeches, you must study the Bishop of Hertford's speeches, you must study Mr. Trollope's speeches, you must study the Poor Law Reports, and the men among you must go in places like Homer Street and its adjuncts in Liverpool, like Hoxton and its adjuncts here, and see that no longer are the children of your race to be mere adjuncts of a

¹ Vicar of St. Augustine's, Fulham.

machine, but that each child as it is born is to become an asset of the State.

Now that is so in Germany. Here is Huret's book. He goes all down the Rhine, he stops in every manufacturing town, he goes through all the works in Westphalia, he goes along the canals and the railways. He is a Frenchman, a Publicist, and he has no party or national passion, but he proves clearly that there is no child of any German who is mere flotsam and jetsam, a mere item, a mere adjunct to a machine, and the mother not knowing where she is to be housed. There is not one manufacturer in the whole of Germany who tolerates such a thing, as is common here. For that reason, if for no other reason, you must be beaten by central Europe and northern Europe in commerce and in war, because the breed and disposition of the people are seen to carefully in Germany, and are not seen to as carefully here. Of that there can be no doubt.

You say: "What, are you going to talk militarism?" I would a great deal sooner see militarism than a desire for sport. I would a great deal sooner have a decent barrack for a boy to march about in, if that boy were a relation of mine, than to see him lounging in a Westminster, Whitechapel, or even a Kensington back street. I have lived in barracks; I have been with private soldiers in barracks; I have been in foreign barracks and English barracks, thieves' dens and kitchens, and slums. I have stopped with ten or twelve *déclassée* women and five or six thieves on the same floor and in the same room for the night—I did not enjoy myself in the least. But if I must look after boys, either as my own kin or as children of the poorest of the poor, I prefer to treat a boy as do Herr Tyssen and his friends. He is a great captain of industry in Germany, and he has 20,000 employés. He says that the Germans are a dull, sluggish people, and if they were not regimented, as they have not as alert brains as the British or the English, they would soon decay. I could read to you, but I should not have time as I have so much to go through, and so I should like you to take it from me—if it is denied I will produce the documents—the result of an inquiry as to the cause of the pre-eminence of science in Germany, as to the cause of the success of its chemical industry, which ought to be an English industry, as to the cause of its beating France in the silk industry, and in such articles as gloves, hats, and so on. Why is this? With one voice the merchants and the capitalists—and I am not very fond of capitalists, I assure you; I do not mix with many capitalists—all of them admit that it is an admirable system of training, and culture, and discipline. A Vth Army Corps man from the east, or an VIIIth Army Corps man from the west, a poor peasant or factory worker, comes and mixes with highly educated men, sees something new, and gets out of his narrow groove. That is quite something better than betting and seeing

the odds and making a hero of a fellow who kicks a ball; although he never kicks a ball himself, or makes a hero of his own toe, or makes a hero of the other fellow's toe or his bat.

That is what I cannot understand at all. Thus the VIth Corps man from Silesia, or, better still, a poor Westphalian boy who has been working at the forge or the mine, at the most susceptible time of his life, comes and gets clean, is registered, is uniformed, is somebody—perchance becomes a corporal or a sergeant or a professional soldier, sees different things from the environment of the mine, hears different languages. I have here records of Americans, the President of Yale College amongst others, pointing out most distinctly that it is impossible for a man in Germany to be ignorant, and for an officer, and that there is no officer of any kind in Germany who is not as good a scholar as an American Honours man at a university. Crowds of richer men are in the ranks—the gallant Colonel, who knows all about it, will correct me if I am wrong—and as one-year Volunteers they mix with the other boys. There is idealism circulating. Even if it is Socialism, it is better to have a clean and healthy Communism than decadent Manchester School ruffianism; I would rather have Communism clean than individualism dirty. If they must be Socialists, it is much better to have an intelligent Socialist and a military Socialist than a dirty sneak, an area Socialist. Let us have MEN, anyhow. The German system makes intelligent men, and diverts their attention from the paltry idiotic cult of games. According to German patriots and masters of industry and captains of industry, every single one of these great industries, of these mighty establishments at Düsseldorf, at Essen, and so on, is due to the introduction of sound good education. They preach the same as the Japanese preach. The Bushido is preached with them, the education of the soul, the education of the honour, not merely instruction, though there is instruction too. And above all, there is education of the physique and of the manhood. The result of all this was that even as early as 1808, two years after Jena, the whole blood of Germany burst out, professors and scholars and all, into a *Tugendbund*—into a Virtuous Association, into an Association of Honour, into love of country, into singing "Songs of the Sword" and the "Watch on the Rhine," and such like lyrics, until it came to this, that not a single German maiden could be found who would unite herself to a man who had not given evidence, by learning the art of war, that his heart was with his country. Is that not an elevating idea? Aim at that, and all will be right.

Now listen to the theory of one of the thoroughbred asses in England, the idlers, philosophical humanitarians, politicians—I do not care on which side they sit—metaphysical strategists—dialectical, factitious fools anyhow—here is a university Don who begins to lecture the public without knowing the first principles of manhood himself. If every university Don had to be a corporal in a Foot Guard regiment for a year, it would

do him a lot of good for the rest of his life. If he was for a while in a Hussar regiment if he was light, or in a Dragoon regiment if he was heavy, I believe he would do more good in the world. General Rimington is here now; he made me make a sermon once in Ireland on a Sunday I think it was, much to the astonishment of Wicklow folk. Does he believe there is any man in any university in this kingdom who would not be all the better for a dose of discipline, kindly and genial and helpful discipline, such as I saw displayed under his charge among the gallant boys who came from Fermanagh, the place near where my ancestors lived—the Inniskilling Dragoons? It would do them an enormous amount of good. One of these philosophers must needs preach a few days ago, and he preached to this effect: that to adopt universal military service would be contrary to the best traditions of Englishmen, and contrary to the best traditions of Britishers. He made a speech about it the other day, and I wrote to him, but he never answered my letter. I wanted to ask him where the history of Great Britain began, for I would like to know, if it is contrary to the best traditions of Great Britain when it began to be contrary to them. He did not reply. I said: Let us divide it up. We both know where we live, though you do not seem to know anything else. Here are the British Isles. England is principally inhabited by the descendants of people who came from North Germany—Jutes, Saxons and Angles. The top part is inhabited by descendants of Celts, so is the west, and so is a good part of Ireland. Manifestly, the people of the United Kingdom of Great Britain and Ireland had a history longer than your lifetime. I said to this professor: Do you mean to tell me that it would be contrary to the best traditions of the Irish clans or septs before the Normans came to conquer Ireland to have obligatory military service? He did not know. But we do. Take my clan: if by any chance the Chief in the time of the Plantagenets or Tudors, of one of those issued a call to the clan to come and fight, how many of the clansmen would be absent, might I ask you? I would be sorry for myself if I had not been there, because my dishonoured carcass would soon be swinging from a gallows by the shores of Lough Erne. That is the kind of objection to military service they had in that part of Great Britain. Now take the gatherings of the Macdonalds, Frazers, Camerons, Macgregors, and such like. Did you ever read Scott's "Lady of the Lake," or the "Fair Maid of Perth," or "Waverley," or any of those illustrious novels and poems of the Wizard of the North? If not, read them. Is not his whole conception of the life of those people that of a people who are ready to gather together and to fight under their chiefs? Even after the clans were broken, you find them in the service of Great Britain from Canada to Australia. It cannot be pleaded that the Camerons or the Macdonalds shrunk from this honour. I told him that has been their history. It is only since the Manchester School of money-

making poltroonery began to dominate England, that such a notion as opposition to universal military service entered into the head of any man. Take the Normans; why, they had obligatory military service as part of the law of the land till 1660. Knight's service was only abolished in 1660—every schoolboy knows that, I suppose; consequently, every gentleman or lady of Norman descent here is descended from people who could not understand a condition of affairs in which every man was not bound to be a soldier instead of looking at other people playing a preposterous game of cricket. Instead of paying professionals for that kind of thing, every single man of them had to keep a horse, if he was a gentleman, and practise martial exercises, or be fined or imprisoned, or do other service according to his rank and means.

Now take the Saxons. The Saxons had their universal Militia, the Fyrd. Henry I. revived it, and Edward I. revived it again. The Tudors insisted on archery, not on a ball, and any man who dared to play ball till he had done his archery course at Newington Butts or some other butts, was fined and put into the stocks as late as the time of Queen Elizabeth. When the Militia was revived by the great Pitt, it was revived with Ballot; I have here document after document showing that in the Peninsula War the Militia was recruited by ballot. I have Alison here describing in 1809 the enormous resources of our country. What are they now? I had better take it and read it, just to confute some would-be fools.¹ They are making an awful fuss now. I see my excellent friend, Mr. Spenser Wilkinson, is discussing this matter in the *Morning Post*; I also see that the *Standard* is discussing this matter, and the *Daily Telegraph*; indeed, the whole of the papers are teeming with information since I had the honour of speaking here last.

Now see what we can reckon. At present, mark, we have 43 millions of people, and here is what we have: Regular Forces, 123,000; Army Reserve, 134,000 (you know the Army Reserve, and how much training it gets); Special Reserves (that is the last Militia, and you know we had an argument about the Special Reserves here, and we were able to prove they were a complete failure), about 70,000 odd; and then the Territorial

¹ "In the campaign of 1809, Great Britain first appeared in the field on a scale adequate to her mighty strength. . . . With a fleet of near 1,100 vessels, including 240 of the line, she blockaded every hostile harbour in Europe, and still had 37 ships of the line to strike a blow at the Scheldt. With 100,000 Regular troops she maintained her immense Colonial Empire; with 101,000 more she kept in subjection her 70,000,000 of Indian subjects; with 400,000 Regular and local Militia she guarded the British Isles; and with yet another 100,000 disposable troops she carried on the war on the Continent, and menaced at once Antwerp, Madrid, and Naples."—Alison's "*History of Europe*."

Force. These are old Volunteers, and it is the best coaxed force that ever existed since the beginning the world, I think—all kinds of deludhering blarney, from conscription by employers to stage plays and so-called Marathon games, are used to coax recruits. The apple of the eye of every official is the Territorial Force. Had the Volunteers got one-third of the coaxing—I was a Volunteer myself—it is impossible to think what we might have done. But here we are: 6,000 Territorials paraded before the Lord Mayor, and yet 27,000 paraded with their own horses in 1803 in Hyde Park, and at their own expense—27,000 out of a population of one million, 6,000 or 7,000 out of a population of five millions, and the greatest possible difficulty in getting 26,000 or 27,000 for London all put together. Then you have Officers' Training Corps, 416. That means the public schools. The public schools teach nothing whatever, as you will soon see; theirs is the worst educational system in the world without any exception whatever, and is a deadly danger to the nation. I have the reports here, and you will soon see what kind of examination was passed by the Officers' Training Corps—these men could scarcely read or write; and all this has been reported on by Colonel Kitson, General Baden-Powell, and Mr. Benson, a schoolmaster. It is a most deplorable and appalling state of things. You have now about 600,000 persons called soldiers in all.

Now, Colonel Lonsdale Hale, you had obligatory service for these Volunteers as well as Militia in 1803. What harm did it do you? You were able to engage in war with the greatest of all soldiers, and to beat him; you were able to maintain command of the sea; at the same epoch you were able to beat Indian chiefs, like Tippoo Sahib, and you were able to beat the Mahrattas, the great military organisations of Hindus. You had obligatory military service revived in 1803, and then the person who felt that he would be disgraced by such a thing as obligatory military service had to make up his mind to do one of several things: to be either a Regular soldier, or a Militiaman, or a Volunteer in a regiment approved by His Majesty; that is to say, in a regiment regularly drilled, well-drilled, and with plenty of cavalry, too, and guns. He had to be one of these things, or go to gaol, or go under the ballot, or buy an exemption from the ballot.

Consequently, I come to you and I say, without any hesitation, that you never will be able in the future to maintain your position, as you managed to do it in the past, unless you go back, not to the mere abstract theories of men like Bacon or men like Themistocles, although they had some experience, I think, but to the practical action of your own ancestors in every age. Whether your ancestors were Scottish Celts, Welsh Celts, or Irish Celts, whether they were Danes, Jutes, Saxons, Angles or Normans, not one of them at any period of our history thought for a moment that they could cope with any great military crisis without adopting the same system as the Germans.

now adopt, and which was so admirably described yesterday in the *Morning Post*—without adopting the same system which makes all the corps shown on that map of the German Empire ready for action and ready to move to the frontier within two days. It is the system adopted in Switzerland, the system adopted in Russia, and, above all, it is the system which enabled the Japanese to drive the Russians out of Manchuria; and no other system. You must have the education of the better classes, so called. I do not believe in "classes" myself at all; I do not believe in horizontal layers of humanity in the same race. There are quite enough distinctions without that. I believe in competition among all of us for the common good. That we must die we know—it is the life that is the thing; and it is when we realise that life, death, happiness and sorrow are common to us all that we recognise this snobbery seems to be the most ignoble thing of all. Why should I shrink from that poor working man going home, on whose work I live? I say I do not believe at all in this doctrine of class; but I assert that it is beyond all dispute that the only sovereign method of getting out of an international crisis is by the development of a lofty system of knowledge, education, and science, among all the people who can afford the money and the time; and of a sound patriotism and sound limbs, of security for industry, of good housing, of chances for the children, and of readiness to fight, among the rest of the members of the community. I do not believe any nation ever escaped from thralldom by any other means, and I do not see how any nation could escape from thralldom by any other means. Mark you, if your own nation, in a time of vessels being propelled by wind, not in a time when vessels can go almost as they list with steam—I say nothing about the coming of electricity, or any further innovations—in the olden days, in the days of Nelson, and in the days of Raleigh, if your Island could not be secure then, notwithstanding all its naval power, and could not for a moment trust itself to mere naval power, and if the nation insisted at every period of its history on obligatory service, who are you now that you should hope to escape from the inevitable lessons of your own past history, and of the history of every other nation on earth—Greece, Rome, or any other—who are you?

The thing is monstrous folly, and the sooner you give it up the better. I say it is un-English as well as un-British to try to shirk dealing with this question any longer. I speak with all due respect of the Territorial Force. Like Mr. Wyndham, I am entirely with the Territorial Force, *pro tem*, and till you get a better system. Get recruits; do not throw up what you have till you get something better. You have got so many men, do what you can, learn all the art of war that you can, but remember there is evidence that nothing will do except the real thing, and that there is not the least good in trifling with your fate till it be too late. Where will you be then,

and where will your children be? Where France was? Far worse you will be—but I need not go on repeating in this lecture what every General knows better than myself. Will sport save you? Will ignorance save you? Will public schools save you? Will tomfoolery save you, whether political or educational?

I will give you another example, not exactly of national recuperation, but something akin to it. I refer to the case of the Japanese, those proud islanders who, finding themselves in the early sixties of last century faced with humiliating demands from European Powers and the United States, set themselves with stern determination so to reorganise their national forces and their system of Government as to render their shores secure against foreign aggression, and any repetition of the insulting demands of the past too dangerous a game for any foreign nation to attempt. That, in a little over thirty years, Japan should have raised herself to a commanding position among the Great Powers is one of the most astonishing events in the history of the world. Far from fearing invasion in the future, it is much more likely that the Japanese may come out of their islands, perhaps in the direction of Australia, as some believe, or perhaps in the direction of the great United States. The Japanese owe their position to two things, and they say so. Suyematsu says the position of the Rising Sun is due to, first, devoting themselves sedulously for 20 years to the most perfect conceivable form of education for their officers, and for as many of their poorer classes as they could. I knew of Japanese nobles who were walking almost arm-in-arm with labouring men, bringing these labouring men to lunch, and then going with the labouring men—to see if they could not discover something new in electricity. That is true honour. That is nobility of soul. That is the right kind of class pride. Baron Suyematsu gives an example to many a baron here of how he should devote his leisure, his money, and his superior chances, to the elevation of his countrymen. Then, secondly, they adopted a system of health joined with the obligation to military service, that enabled the so-called "monkeys of Japan" to deal with the veterans of Russia all along the line of railway, from Port Arthur to Mukden, and nothing else, gave them their superiority. And your Peninsula record was due to a similar state of national and strategic enterprise and readiness.

Now, gentlemen, take these two or three things about education and sport to heart. I am quite convinced from what I hear on all sides that there is a feeling, and an uneasy feeling, that all is not right with us. As before a storm you know there is silence in the heavens, so even now a great regeneration is shaping itself perhaps. "The rack stands still; anon the dreadful sound of thunder doth rend the region." We must take all possible precautions against

future dangers. There is scarcely a woman, there is scarcely a man whom I know, from the humblest cottage to the richest palace, whether I take lunch either in dignity with a millionaire or with the poor in a public house having a drink and a bit of cheese, who does not think that there is something wrong with your race, and that you may be gliding into some terrible danger. The papers themselves are obliged to pander to the disease of sport. I have bought every paper for a long time, and here is a sample panorama that I brought for my lecture (*exhibiting several newspaper contents bills*), with nothing on them but football and cricket news. You are welcome to them; I do not want them.

The gallant Colonel is not delighted with them; nor am I. Is there nothing else going on but sport? Is there no Salonica question? May we not be ousted from the trade in the countries between Belgrade and Smyrna? Is there no movement in Egypt? What about Crete? Are we to drift into oblivion for such a thing as the Australian match? Would that the Australians, instead of learning how to make their feet big, were thinking of Japan! We do not want the Australians to teach us this kind of rubbish here; we have had too much of cricket already, and are far from forgetting it. Look at this bill: "Sensational Play!" Is that what the English are devoting themselves to in the 20th century? No wonder the Germans laugh at you with scorn. I have had large dealings with German officers, and I am frequently asked: "Do they never read anything, the English?" Never—they cannot, a lot of them. Baden-Powell says that they cannot do anything except read the headings in the *Daily Mail*, and they get tired of those very soon. No wonder. And they talk to me about horse racing. Gentlemen, what if a shock were to take place in the commercial capital of the world? A shock to it, mind you, would reverberate everywhere. A temporary cessation of our commercial position through any stroke of war, even through a small raid—as I heard officers admitting the other night when they were discussing raids—would do London far more harm than an invasion of one of these other States, Austria or France, by five or six army corps. Yet this kind of thing, this sporting lunacy, passes for intellectual pabulum among University men and newspaper proprietors. I do not blame the editors, you know. They do not edit newspapers merely for the love of country, or for the love even of the House of Commons, though they report Members' speeches. I will tell you what I am told by the newspaper agents. I went to several of them this week, so that I could get the freshest news. I went to the men at the stations, and I said: "Now, why do you sell these papers; do you sell them because the people want political or military news?" "Never; we sell ten papers for gambling to one that we sell for any other purpose." Now as regards the wretched "Marathon" tomfoolery races, which do not resemble Marathon races in the slightest degree. If

men were deer it might be well enough, but then men are meant to be men. These Marathon races are utter nonsense—only for gambling and only betting and factitious excitement. This is what the German says: "It was in England that football started on its triumphal procession throughout the world"—like Julius Cæsar through Gaul!—"and in nearly every European country to-day the innumerable disciples of this sport"—all I can say is, that if this goes on, the Chinese will make short work of all Europe, if they please to cultivate their brains instead of their toes—"regard England as the country where this sport is carried on in an ideal manner." I saw that myself on Good Friday last. I was crushed like a herring in a barrel for 2s. 6d., listening to a lot of yelling Yahoos commemorating football fellows in Fulham. I never was so miserable for a long period of time. I would rather do time with a suffragette in Holloway. England is "the country where this sport is carried on in an ideal manner, and where all ranks of the population are wildly interested in it. That the latter statement is a fact can be proved by anyone spending the winter season in London who looks about him at all." This is from the *Tägliche Rundschau* of 4th May, a celebrated German paper. "But whether or not the manner in which this sport is carried on to-day can be that ideal; whether or not the giving up of everything to football on the part of a large proportion of the population is a good state of affairs," for England, "is a question to be asked with a large amount of doubt." It suits England's rivals very well indeed, but whether it is good for England may be put with a very large amount of doubt. "No one who has not observed this sport carefully during the winter can form any idea of the way in which football has laid hold of the passion of the English people. IT HAS BECOME QUITE A MANIA"—that is quite right in every respect. "Football has become a disease in England, and there are many thoughtful people amongst the English who recognise this and try to fight against it. But they preach to deaf ears. . . . Most of the players are professionals who live by football and who receive a fixed salary from the clubs. . . . Stand in the streets in the evening when the last pink paper appears with the results of the football matches, and look around." He goes on to turn the whole thing into the greatest possible contempt.

Then I have here a French paper *L'Eclair*, which follows it up and proves that the English have become abject degenerates all round, and that the upper classes of England have got to such a pitch that I can only describe it by the word "insane." The *Daily Telegraph* had an article which I have not the time to read, in which it is pointed out that owing to the mania for cultivating games in those undesirable places called public schools, they teach nothing. It will be found that the great mass of young boys of the richer classes and "officers' training schools," when they come to be 18 or 19 are abjectly

unfit for competing with other boys of their age in any part of the world. That is laid down definitely by every authority; and when there is a German or a Scottish boy going up for a situation in the City of London, he will be taken in preference to an English boy. In Canada, no Englishman need apply. I am sorry to say that that same contagion begins to apply to Ireland and to the south of Scotland. Now listen to this—this is what Mr. Benson of Eton says, whose book, "The Schoolmaster," I have here. It is a most excellent book, and I would advise you to read it. I know parents come to me crying bitterly on finding, as the *Daily Telegraph* says, that their son may be a good cricketer or a good football player, but he cannot get any situation, and if he were not a rich man's son he could not get a commission in the British cavalry or the British Guards, unless he gets in, as General Smith-Dorrien says in his "Simla" report, in a state of ignorance that really is a disgrace to his race and an insult to the men under his command. This is what Mr. Benson says: "We send out from our public schools year after year boys who hate knowledge and think books dreary, who are perfectly self-satisfied and entirely ignorant, and, what is worse, not ignorant in a wholesale and humble manner, but arrogantly and contemptuously ignorant, not only satisfied to be so, but thinking it ridiculous and unmanly that a young man should be anything else. The intellectual standard"—mind you, of the people of this nation, which has to rule 400 millions of people—"maintained at public schools is low"—decidedly low. What do you think of that? End it. Make it decidedly high.

He goes on to say that public schools like Eton and Harrow "kill the germs of intellectual life." Is that right? Is that what you should have? Is that the object of these schools? Is not the object exactly the reverse? If a German *Realschule*, if a French *Lycée*, if an Irish small intermediate educational school, supported by private enterprise—if all these can teach and bring up men, there is not the least reason why Eton should not do so. As I said last time, is there any reason why a country gentleman in Breslau should be a better educated, a healthier and a stronger man than a gentleman born in Yorkshire? Or is there any earthly reason why a man born in Hamburg or in Kiel should in any respect be a better man with regard to education when he is 21 than a man born in Liverpool, or in Manchester, or in Plymouth? Why do you tolerate such an infamous state of affairs? The persons who carry on such a system ought to be ashamed to call themselves reputable. Only three days ago the *Morning Post* had a long discussion about pass men at the Universities. I have read what was written a few years ago by Mr. Benson, but this was written only a few days ago by Mr. Carlyle, of University College, Oxford—a celebrated don—not like the kind of a fool of a don whom I quoted about obligatory service, but a wise don. He says: "It is lamentable that so many young Englishmen come to

us from the public schools with not a mere indifference to, but what is almost a contempt for, learning"—a contempt for learning in the public schools!—and then he goes on to say more things, upon which I will not dwell. I have evidence after evidence that you must select a set of officers who appreciate this state of things, and that you must see that these gentlemen get fair play. It is not the fault of the officers in the least degree. They are perfectly willing to pay, and, as General Baden-Powell says in a letter to me, they are perfectly willing to do what is right. You even get young people in other ranks to go as scouts. But the SYSTEM is all wrong. The Cabinets are all wrong. The schools are an ANACHRONISM. Our bureaucrats are out of date.

Now here is my last quotation. That this report should be written is an insult to the British community. There was an examination held last September, on a very small course of knowledge, at which sat 336 young gentlemen. I knew a lot of them, and saw a lot of them. Of course, these young gentlemen will be $2\frac{1}{2}$ inches taller and two inches better round the chest than the poor people with whom I spend my Saturday and Sunday evenings. Why, even so great is the difference between one part of London—the East—and another part, that the boys in a Board school, when they go to a school of another type where the children are better fed, say: "Father, the boys in that school are all men"—the difference in the physique is so great. Three or four years different treatment would cause you to have another nation among the poor—I assure you it would; and a similar state of things for five years would cause you, without weakening the physique of one of your young men, to have a different intellectual race among the rich. You could do it easily—there is not the least doubt about it. But of these young men, 211, after £1,000 had been spent on an average on their education, were utterly rejected out of the 336, on a merely elementary course; and yet these are the kind of people that we make officers, and these officers have been trained in schools under this ridiculous system which is scouted to-day, I say, in the *Morning Post* and in other papers by able writers. Now this is the Report, and these are the men that are to be the leaders of your race. Two hundred and eleven out of three hundred and thirty-six stuck and were absolutely unfit to be lieutenants of the Army, sergeants of the Army, bank clerks, or business managers in any capacity whatever; in fact, from whatever cause, there were 211 wasted lives among these 336 who sat at one examination. Is that the way to be great? Is that the way to sow greatness to posterity? This is the Report:—"English (Essays): The essays as a whole were very mediocre. . . . Very few, indeed, were able to arrange their thoughts in proper sequence." That is not good to start with. "Dictation: Some of the candidates made the most grotesque mistakes, both in orthography and in

punctuation. *Précis*: The *précis* was in most cases unequivocally bad. *Arithmetic*: Much of the work was very unsatisfactory"—scarcely able to count. "*Geometry*: The results of the examination in this subject were very poor indeed"—the examination was in the first and second books of Euclid. There was no one in my circle who did not know these books of Euclid when I was young; and yet, "the results of the examination in this subject were very poor indeed." "*Geography*: There is still an unduly large proportion of the candidates who know practically nothing of the subject. *Chemistry*: On the whole, the quality of the work was distinctly poor. *French*: There was a lamentable ignorance of a sound elementary knowledge of the language." To-day there is an article in one of the leading papers pointing out that whereas you will scarcely find one German naval officer who does not know English, you will scarcely find an English naval officer who knows German. That will make a very considerable difference at the mouth of the Baltic under certain conditions, and is far more important than the wanderings of any man in an aeroplane over Norfolk. "*German*: Of the ten candidates offering German, not one was really good, and some were very bad. *Latin*: Only a small proportion of the candidates were safe from making blunders of the most elementary description"—after being under a Rev. professor for six years. They could not translate four lines of Virgil's description of the campaigns of Æneas. "*Greek*: The one candidate in this subject sent up half-a-dozen words of no value."

It may be asserted without fear of contradiction that this is a disgraceful state of things. There is not one sane and healthy boy, aged 17, son of a Belfast, Glasgow, Aberdeen, or Munich, Dresden or Vienna, Orleans or Berlin, small shop-keeper of whom such a report could be written.

Do you not think I have made out a case for the necessity for national recuperation; and do you not think I have shown you that your nation, by its position, by its connection with its Colonies, by its present naval power, by its past traditions, by the fact that its officers were the best educated in Europe one hundred years ago, by the fact that they have written the story of their race in every climate—do you not think that I could appeal by all these memories to you to rise up and to devote yourselves, without in the slightest degree neglecting all reasonable amusements and all manly exercises, to study the future of your race and make up your mind that the coming generation will be in every respect able to cope with Germans, Austrians, French, or anyone? That is all I ask you. Put them on a level. You cannot do better than go down the Mediterranean on board one of these German tramps, or in a better ship if you can afford it—go right down the Mediterranean into the Levant—and see how the whole Levant is changing almost as you travel. The railway is down to Syria; in fact, the railway is

going down to the sacred shrines of Arabia; and that, as General Rimington knows perfectly well, may effect the whole strategy of the future, and may also affect the future of all races from India even to America. These things were not there when I was there in 1898. But Salonica was the same in many respects as when St. Paul was there, and its strategical position, as Colonel Lonsdale Hale knows well, is precisely the same as when the great Macedonian started from Thrace to his conquest of Persia. The position of Athens and these other States was precisely the same as when Euripides wrote his solemn warning against the sports and games of the Athenians. Euripides, the silvered-tongued immortal man, who lived between the battle of Salamis and the Macedonian attack on the liberties of Greece, said: "I have often blamed the customs of us Hellenes, who for the sake of the athletes meet together and honour sports like those despicable Olympian games of ours; but who, I pray you, by his skill in wrestling, his swiftness of foot, his boxing, or his strength with quoits, has served his nation by the crown he gains? Will ye meet the Macedonians face to face with quoits in hand?" Face to face with the Persian chariots will your running be any good? "These follies are forgotten face to face with steel. We therefore ought to turn from the Olympic games, and crown with wreaths men wise and good who will guide the State with minds well-tempered, just and sound in council." In reading to you the immortal words of wisdom of one of the greatest of dramatists, written 400 years or more B.C., I am reminded of the strategical relations of Italy in the Levant and in the Adriatic, and when I think of the Ionian Islands, I am reminded of what happened a hundred years ago, in 1809, when we seized them. The position of Rome also is borne back upon me, and the warning of Tacitus, immediately after the great defeat of the Roman legions under Augustus by the Germans—by the Germans, mark you, a hardy race—when Augustus said the loss of his legions would be written on his heart. What did Tacitus say?—what I am saying now. He spoke of the peculiar and abominable vices of the City of Rome, whose men spent their lives in love for actresses, in studies of prize winners, and in regarding gladiators and horse races. There is a horse race in England to-day even! Much better were it, he said, for them if they were studying something else, and if their minds were not so obsessed—that is exactly what that German I read says about our football—that there is scarcely any place left in their brains for good arts. "Go anywhere," he said, "and listen to the conversation; you will hear no conversation, no discussion, among the young men except about races and gladiators and histrionic performances." That is what Tacitus said. Before long, those Germans of whom he thus spoke had passed the Alps, and had sacked Rome. *Absit omen.* As I was going through those Islands of Greece ten years ago, all these reminiscences were borne back on my mind. Greece has gone, Rome has gone.

Then passing through the "Isles of Greece," I thought of the lines:—

"Where burning Sappho lived and sung,
Where grew the arts of war and peace,
Where Delos rose and Phœbus sprung,
Eternal Summer gilds them yet,
But all except their sun is set."

Where are they, and where art thou, my country? was a question forced into my mind. Still, we here, all of us, are faithful servants of Britain, guarded by St. Patrick, St. Andrew, St. Michael, and St. George, on the verge of his "silver shield, wherein old dents," as Spenser says, "of deep wounds remain, the cruel marks of many a bloody field." With the history of a thousand years behind us, notwithstanding all this gambling and sport, and social degeneracy, we can, if we like, in a few years, be what we were in 1815.

Remember the story of 1809 and be true to yourselves in 1909; then you can look on Britannia with pride, and exclaim: "All is not vanquished, Beauty's ensign yet is crimson on her cheek, and on her brow, and Death's cold flag is not advanced there"—nor will it be if we cherish her wisely. On the contrary, she will be the happy nursing mother of an illustrious, healthy, intelligent and scholarly, enterprising, and powerful race.

Brigadier-General M. F. RIMINGTON, C.B. (Commanding Secunderabad Cavalry Brigade):—After Dr. Miller Maguire's very eloquent peroration, I am afraid it will seem almost like bathos if I remind him that in the Houses of Parliament—not in this present administration, but in the last—they said that we should have six months' notice. If that is so, I say Dr. Miller Maguire is trying to frighten us, because I presume that they do not say that in Parliament without having some reason for it. Is it true that they have a reason for it? Or where did they get this idea from?

Dr. MILLER MAGUIRE:—If you are appealing to me, General, I would not believe a mere party politician on oath on any matter.

General RIMINGTON:—Thank you. I believe the present Leader of the Opposition said that we should have six months' notice. I do not know whether six months' notice is enough, but they count on training all these people in that time. The large body of the Territorial Army are to be trained, and their training is to be finished in six months, not possibly of war, because we are to have six months' notice, so that we shall be able to get ready to fight whatever nations may come against us, and such as have been trained for two years certainly. Six months' notice will not be enough, because we shall not take any notice of the warning. Therefore, what Dr. Miller Maguire has said is perfectly correct—we must always be prepared. Not only that, but we must bring up the children of the race with a thorough understanding that they are to be ready to fight at any time. Dr. Miller Maguire mentioned several cases in which during the last 1,500 years there had been more or less compulsory training in Great Britain. He did not, I think, mention the

case which I came across the other day, not in a history of England, but in a history of Wales by A. O. Vaughan. In that book the author stated that about A.D. 700 or 800, every boy at the age of 14 was sent to the chiefs of the clan, and was taught the arts of war, and he was taught the arts of agriculture, and from 14 to 21 he was put under the harrow, not only behind the harrow or the plough, and he was trained properly for war. It was not until he was 21 that he was allowed to get married—that is early enough. He was then allowed to be married, and he was fitted up with various cows and ploughs, and so on, which he had worked for during those seven years. I cannot personally see how it is any detriment to a man to be properly trained. He has to be trained at school, so why should he not go on and continue his training? Why should he leave off when he is 14? All the illiterates in the Army, or who attempt to come into the Army, are those who have forgotten what they learnt at school. I think they should go on with it. There is no doubt that you cannot move without a mandate, and I do not think the country has quite given Parliament a mandate for compulsory service, or compulsory training we will call it. I find many people who are dead against compulsory training. They talk about the German Army and the cruelty of the non-commissioned officers, and so on. Nobody has a better time than a man trained in our Army at the present time; nobody has a more pleasant time than he has. Why, if there were compulsory training, should he have an unpleasant time? I see no reason for it. They are not brought up properly at school in these matters. One of the points which I think has really done the country more harm than anything else is the fact that there is such a very large population in the towns. My experience of the people in the towns has been that they are cynical, and that they are soft. If they are cynical, they will not fight. You have to be hard in war, and you have to train people and bring people up on hard lines. I may tell you with regard to the training of these young officers whom Dr. Miller Maguire has mentioned as being so illiterate, that after they have been in the cavalry for two years they are quite capable of coping with any college don. The most dangerous thing that happens to us is a successful war. I think that Wellington's great successes in the Peninsula and at Waterloo were the beginning of the degeneracy of the race. Wellington at the end of that war found out that if he had good officers and good non-commissioned officers, and was in a state of war, it was quite simple as long as you had what the Germans call plenty of *Kanonenfutter*; you can with good officers and non-commissioned officers train men very quickly in a state of war—but not in a state of peace. I think it was that very fact that at the end of these wars he had a very large number of probably the very best officers and non-commissioned officers that any country has ever possessed, that led Wellington to let things go from the date of Waterloo up to the time of the Crimea. That had a bad effect on the nation. I was speaking some four years ago in a town up in the north, where I knew they were Quakers and people who did not like war. I said, "Perhaps you would like to know what I think about compulsory service. You will never have compulsory service."—Hear, hear, great cheers. I waited for a moment till they had subsided, and then I said, "You will never have compulsory service till you have had a real good hiding."—Oh, oh, groans.

Commander W. F. CABORNE, C.B., R.N.R.:—I esteem it a privilege to be permitted to say a few words in support of the views so admirably

placed before us this afternoon by Dr. Miller Maguire. I fully endorse what he has said with regard to the over-indulgence of our fellow-countrymen in sport of various descriptions. Cricket, football, and other games are good in themselves, and their players are to be commended when they also take an interest in national affairs, and appreciate the fact that they have duties which they owe to their country. But that which is to be condemned is what may be termed the idolatry paid to professionalism, and one fails to see how looking on at professional players in any way adds to the manhood or strength of the nation. If we continue in the present mad race after sport, we shall fully justify the dictum of Carlyle that these islands contain so many millions of inhabitants, mostly fools. Then we have to contend with the humanitarians, the peace-at-any-price party, the people whose vision does not extend beyond their parish pump, who affect to think that money expended upon national armaments and national defence, which is only national insurance, is money thrown away. Of all that the lecturer has told us to-day there is no greater truth than this: "That England has nothing whatever to fear if England is true to herself." Dr. Miller Maguire stated that we were in a very much better position a century ago than we are at the present time, and I may point out that that was so in a direction which has not, I think, been touched upon this afternoon. A hundred years ago this country was practically self-supporting as regards its food supply, and an enormous quantity of corn was then grown. Now, with a vastly increased population that is a condition of the past, and we are mainly dependent upon external sources of general food supply; accordingly, it is of the most vital importance that there should be no great interruption of that supply in time of war, otherwise we should be starved out in a very short time indeed. In connection with this matter, and our sea-carrying trade generally, it must not be forgotten that we have a considerable percentage of foreigners¹ in our mercantile marine, a fact which may be considered alike a danger and a disgrace. General Rimington alluded, ironically, to six months' notice being available before we found ourselves launched out into a big war. Well, it is probable that when the blow comes it will come suddenly. Port Arthur must ever be an object lesson for us. There, the Russian warships were torpedoed in the roads and an important section of the Russian Far Eastern fleet put out of action by the Japanese on the night of 8th February, 1904, before war between the two countries had been declared, although it is true that diplomatic relations had been broken off on the previous day. May we not be as suddenly attacked? Let us be prepared against all eventualities.

Dr. James STEWART, B.A.:—I venture, Sir, as a visitor to this Institution, to express my own thanks for your hospitality as well, I am sure, as those of many who in times past have been educating themselves by reading the accounts of your discussions here. Nothing, I am convinced, will give greater pleasure to students of the history of our own times than the perusal of the report (which will appear, I hope, in full)

¹ In 1907 (the latest year for which official figures are available) there were 277,146 persons employed in our mercantile marine, of whom 194,848 were British, 37,694 foreign, and 44,604 Lascars and other Asiatics, the proportion of foreigners to every 100 British persons employed (exclusive of Lascars) being 19.35. This shows a slow but yearly decrease since 1903, when high-water mark was reached, there then having been 40,396 foreigners, giving a proportion as high as 22.88.—W. F. C.

of Dr. Miller Maguire's lecture of to-day. I believe that it will open the eyes of a good many as to the real cause of our being in this country in our present parlous condition. I speak as an old naval officer who has travelled in many countries, and who has listened at various times to the ideas of foreigners on various subjects. Having heard their opinions, and knowing what their feelings were 30 or 40 years ago, and having been recently abroad where I became acquainted with their views of the present day, it is a sad reflection for myself and all who have the interests of the country at heart to know and feel that amongst our foreign neighbours there is not that respect and admiration for England now that there was 30 years ago. I am sorry for it. I am an Irishman, and like all loyal sons of Erin, I am proud to be a citizen of our great and glorious Empire; and I am indeed sorry when I find my foreign friends speaking in the terms that I know they do in the present day with regard to a matter on which Dr. Miller Maguire, I am glad to say, has laid great emphasis, namely, the excessive devotion of the great majority of Englishmen nowadays to so-called sport. I say this as a champion tennis player of days gone by—proud in those days to be so. It is one thing to play a game for the love of it and for the exercise it involves, but another thing to go and watch professionals playing for money. It is one thing to get trained as an athlete, so as to acquire, if you like, a reputation in the amateur world: it is quite a different thing to pay other people to expose themselves to the jeers or admiration of a multitude assembled on a public ground. I say this with great regret, because I believe that cricket, football, tennis, and similar games are splendid things for training men in habits of discipline; but I say that it is a degradation of sport for people to rush headlong, as they do, into the enclosures and tumble over each other in their desire to see how a favourite acquires himself on the football or cricket field. But I have no right to occupy your time. I merely rose to express my thanks, as one of the general public, to this Institution for giving an opportunity such as we have had to-day of hearing words of wisdom from one who has studied the subject so thoroughly. I would like also to say how proud I am as an Irishman that Dr. Miller Maguire is a countryman of my own.

Major R. E. HOME, R.A.:—The lecturer has made out a most admirable case for the necessity for national recuperation, but what others have failed to do, so has he. He has failed to show us how this recuperation is to be inaugurated, how it is to be set to work. It can come in two ways—either by a clarion call to the nation, such as went forth when Peter the Hermit preached through Europe; or by a joint movement amongst the individuals of the nation. Now you will find that if the individuals of the nation are asked what they really wish for, they will reply that they desire to choose the line of least resistance, the line which will give them the least possible trouble. If the case is put fairly before them, that they must either pass under a foreign yoke or make some provision to retain their independence, if they are fairly faced with those two alternatives, I think they will be likely to choose the evil that they know something of—they will choose rather to be governed by their own countrymen—they may even have a chance of being in authority themselves. But, Colonel Lonsdale Hale, the lecturer has hit the right nail on the head when he says that discipline and skill very soon turn a weak nation or a poor city into a thriving community. We have the skill all through the country, but unfortunately the skill is

undisciplined. We want it organised, thoroughly organised, in all its branches throughout the country, and that can only be done by initiating a thorough system of registration. On the other hand, the lecturer alluded to financial difficulties. The great enemy which the country will have to fight in an emergency will be, not so much the enemy's troops, as those within the country who will be striving to make capital out of the nation's emergency, who will be endeavouring to make their own fortunes. Most drastic measures will have to be taken to preclude any possibility of this nature. As this is not an occasion for the introduction of new matter, I will only thank the lecturer very much for the valuable instruction which he has given us.

Major W. G. CARLTON HALL (19th Battalion London Regiment):—The last speaker has said if there is to be national recuperation it must come in one of two ways, either a clarion call from some individual or a national movement among the people themselves. Well, sir, notwithstanding what General Rimington stated just now, I think this time we have both. We have the clarion call from Lord Roberts, backed up by such men as Dr. Miller Maguire; and I venture to say that really the feeling of the nation is very rapidly coming round in favour of national service. That is my own experience. I have done a good deal of work in trying to enrol members in the National Service League, and although I find a great deal of apathy, I have very rarely found anyone who is really opposed to it. There is a considerable number of people in favour of it, but the actual opponents are very few, and I think we have only to put it strongly before the nation for it to be carried with acclamation. If I may be allowed, I should like to refer to two aspects of the Bill which was recently introduced by Lord Roberts in the House of Lords. That Bill provides for universal military training on a very modest scale indeed, but modest as it is, it will have a very marked effect on the military efficiency of the Territorial Force. Under the present voluntary system there are several defects. The first is that you cannot get enough men, the second is that when you have got them you have not sufficient time to train them, and the third is that the time you have to train them is of necessity very much thrown away. The man who enlists voluntarily always enlists in the hope that the work he will have to do will be a change from his ordinary civil employment. The result is that you get men in the mounted branches who in civil life never see a horse, and you get trained engineers serving in the ranks, or with commissions in the infantry, where their talents are thrown away. I have myself known of two cases of medical practitioners holding combatant commissions in the Artillery, although as regards the medical service I believe that has always been filled up. Still, there is in fact a tremendous waste of power in any voluntary system, and if you are going to try and run a Home Defence Force and train them in the shortest possible time, you cannot afford to waste any technical talent that any man may possess. Therefore, I think that altogether apart from the number obtained, the introduction of universal service would mean an all-round improvement in the efficiency of the Force. That, Sir, is rather a technical military point, but I take it that Lord Roberts's Bill, and still more its passing, which I think it will do some day, though I am afraid we shall have little prospect of it during the present Parliament, marks a change in the feeling of the nation generally. For a long time past we have been dominated by the ideas of falsely so-called Socialism. The ruling idea is that every man has rights, and no one has duties. There is only one

class of individual in this country that the modern politician regards as having any duty at all, and that is the rich man, and the rich man's sole duty is to part with his property as soon as may be. But, Sir, national military service is at the beginning of a reaction. It marks the growth of a feeling that every man has a duty to work for his country—I do not mind whether it is specially military work, but it is his duty to work; and I think in the dawning of that idea we have the dawning of a return to the true Socialism of ancient Greece, which held that the individual has no justification for his existence except the good of the State.

The CHAIRMAN (Colonel Lonsdale Hale):—I understand that nobody else wishes to speak, and it is the privilege of the chairman, who is always supposed to have something to say, to speak when he likes, so it shows the state of senile old age that I am approaching when I put myself into the position of speaking not last. The chairman usually being a man of common-sense, very wisely waits till the lecturer has replied; then he can get up and he can talk what nonsense he likes, and he cannot be contradicted even by the lecturer. I am giving up that enviable position because I am quite open to be, as I wish to be, answered on one or two things, and I am quite willing to be scalped by my old friend the lecturer. I should not have been here at all if it had not been on personal grounds; Dr. Maguire asked me to come and preside, but otherwise I have no fancy for presiding. The chairman is supposed to sum up the discussion; I am not going to do anything of the kind, but I have some strong views on the subject, and they do not agree with Dr. Maguire's views; therefore, you see how senile I am to get up and expose myself to his contemptuous reply. The first point on which I do not agree with him is that I do not understand the title of his lecture—"National Recuperation." I thought I knew what "recuperation" was, but I was not quite sure, and so last night I turned to the Century Dictionary; I think it is recovering after illness—regaining of health again. I take exception altogether to the statement that the British nation has lost its health in any way. We have a certain amount of froth at the top of society in the shape of the Smart Set, and we have a certain amount of weaklings at the bottom in the shape of the Proletariat; but I fail to find out, and I want to get proofs, that the people of Great Britain are one whit less manly, less ready to undertake national burdens, less able to carry them out, than they have been in past years. I believe they are just the same. Do we want recuperation? Well, we know when we have fallen ill. We want to recuperate after we have had an attack of influenza, and we can all trace back when the influenza began. I want my friend here who says that we need recuperation kindly to tell us when the attack of illness set in; from what date does he date the falling off, the decadence of this nation—before the Boer War or after the Boer War? I think during the Boer War the nation showed that it has still the same vigour as of old. Therefore that question I would like my friend to answer by and by is, from when does he date our decadence? Then, except in the inevitable physical degeneration in certain parts of the country, I want to know what are the symptoms of this decadence of our nation? I hear so much about sports. I hear that sports are such iniquitous things. I hear it is such a wrong thing to go to sports. I read in the papers that 80 trains came from the north with people to see a great football match. I know lots of people who went the other day, and I wish I had been one of them, to see the

Australians play cricket. I want to know why these people go there. I think my friend found fault with them. They go to see not gladiatorial shows; they go to see the sports which have been the amusement of Britishers for years and years. I will venture to say that if you take all the people who went to the Oval to see Surrey against the Australians, and if you take all those people who went into those 80 trains, you will find that they were all themselves cricketers or football players in their youth or at present. As to the reason why people go now if they did not go before, I believe that cricketers, owing to increased facilities of locomotion, go and see the best specimens of the men who play cricket, just in the same way as a painter likes to go and see great paintings, so good football players themselves like to go and see great football players showing the best of the game. Cricket and these things are perfectly compatible with manliness on the part of the nation. Now I feel very strongly on this point. The British officer, thank goodness, does not give up his cricket, and you may work him as hard as you like, and he will not give up his football either. I live near the Staff College and watch its devotees at cricket. How wicked of them! Last year half the Staff College went down to the south coast for a scheme of disembarkation, working with the Navy; they were out, I think, two nights, and working all day as well; then on Friday night they were out and they could have gone to bed early Saturday morning and come up by an afternoon train. I will tell you the people who did not do that—they were the cricketers. The cricketers did not go to bed; the cricketers came up by an early train, and I saw them play cricket the whole of the afternoon. Tell me that cricket and sports are bad! I say: Long live cricket and sports. But among the harmful things connected with cricket or sports are those absurd silly pictures of the young fellows in the illustrated sporting papers, which give young fellows a wrong idea of the importance of sports. But I repeat: Long may our sports flourish and be taken an interest in. And now please close your ears. Somebody here has said something about and against horse racing. I have just heard that this afternoon a horse named "Minoru" has won the Derby. Don't take that interest in horse racing—don't for goodness' sake. Silence! I call you to order. Why are you glad the King of England and the Emperor of India has won a horse race? Is that not dreadful? Now a few words here. I quite agree—and I have gone some steps towards it myself in my own little way—in the absolute necessity of the youth of England being brought up for the profession of arms. We must have compulsory service common to the whole country. Why have we not got it at once? Because we have got no statesmen, no leaders. We have got no statesmen, no people to lead the nation and show the people of this country that compulsory service is an absolute necessity if we intend to hold our own. I venture to say that if it was put before them properly, these young fellows who now go and play cricket and football, would, moved by the right spirit, willingly come and join the ranks and undergo their military training in defence of their country. This subject has been brought forward lately by the *Observer* and also by the *Saturday Review*; and there is an article which came out on Monday in that marvellous copy of *The Times*. It is headed "The Progress of Foreign Policy." What we want is simply to bring before the masses and the people of this country the changed position which our country holds in the world. That is an idea quite fresh. We have all been brought up to think that the world has been going on much the same, and we have not been awakened. We have not ourselves observed

the total change. As this writer says—it is a marvellous article, and I do not know who wrote it—formerly and in the days of our great national prosperity, so to speak, it was simply England against Europe; and he, in the clearest language and in the plainest way, points out to us that it is no longer a case of England against Europe—that it is Great Britain against the whole world. He points out how, when we realise that, and if we do realise that, we have got a chance; you should read this article yourselves first and then bring it before the people, impress upon them the changed conditions, and that now the time has arrived when we must all, by personal service, put our shoulders to the wheel and think of things more seriously than we have done, which we did not think of seriously because we were not aware of them. Bring the contents of that article thoroughly before the people of England and impress it upon them. You will find then no decadence in the nation and no need for recuperation. You will find then that the country will accept the lessons and come to the front, just as eager to maintain the flag of Great Britain against the world as in old days they did of England against Europe.

Dr. MILLER MAGUIRE:—It is my duty now to shortly reply to the various criticisms, which have been very kind indeed. I am certainly not going, as the gallant veteran Colonel suggested, to enter into any controversy with him from any kind of aggressive point of view. I particularly welcomed the last sentences of the gallant officer. There is not the slightest doubt that the article in the *Times* puts very clearly what many of us have been talking about in a rambling and less coherent fashion. When a man gets a few columns of the *Times* at his disposal he has a very admirable chance of conveying his thoughts to his fellow countrymen, and in this case undoubtedly the author's words will have some great effect. The people should recognise that everything has changed. That map which is issued by the Navy League is quite a different thing from every point of view from any map which history has recorded in the annals of time at any rate. It is not now a matter of the Mediterranean as it used to be, as we see in the historical references which are made; not of the Atlantic as it used to be in the times of the French Revolution and Napoleon, or Wolfe, for example. It is a matter of Oceans. International strategy deals now more with the Pacific than it does with the Atlantic. Questions of vital interest to Canada, and therefore to the Empire at large, may be fought out on the far west of Canada, not on the east of Canada; near Vancouver, not near Newfoundland and Quebec. These international railways have changed everything. The position of Arabia has changed; Arabia is no longer an isolated and desert home of mysterious wandering tribesmen. The relations between Arabia and the Persian Gulf have vitally changed. Persia is reassuming its old importance, as in the time of the Medes and Persians. These vast international railways, as I say, are changing all conditions. Huge steamers transferred hundreds of thousands of troops to Africa. That fact has altered the whole conditions of international relations. Distance is being abolished. Above all, there is the appearance on the sea of new powers of new species, such as Japan, to be followed by China. That alone is a stupendous event, which ought to be brought home to everybody, and which makes all I say, about readiness in brains and in bodies being vital to all of us, immediately of more significance. I say new powers of new species. The United States is one. There has been no power hitherto such as the United

States must be when one can go from New York and New Orleans through Central America to Manila, and so on to the Red Sea. To go on to the position of our race, I highly appreciate the remarks of the gallant Colonel. He is of opinion that there is no deterioration relatively in the British race. Well, there is no man could be better pleased than I would be to learn that there was an elevation relatively; but is there? Do you mean to tell me that you believe that the British race is as well fitted now for coping with these new conditions, with its lackadaisical *laissez-faire, laissez-aller, laissez-passer*, Manchester School, and loose administration and management of its Army, its domestic and social legislation, and its neglect of commercial interests? Do you mean to tell me that England is relatively as well fitted for entering upon a struggle now as she was when she entered upon the struggle with Napoleon? If she is, I rejoice exceedingly. I think the gallant officer conveyed that she was; if so, I certainly do not like to controvert him. But I have my doubts, and grave doubts, too, if the Germans are able to do as Huret reports, and we cannot come near them in certain respects. That we are equal relatively to what we were at the beginning of the reign of Queen Victoria I do not believe. If we have to cope with new Powers of new species in every sea, if we cannot live within our own shore, if our people depend on over-sea commerce for the materials and instruments of their industry, and if other Powers have navies which may threaten ours, whereas at the commencement of the reign of Victoria no nation had any navy which could threaten ours; I contend that the conditions have so seriously changed that there is no time for trifling whatever, and that it would be very much better for the young men to spend at any rate some part of their leisure, which they now devote to games, to military exercises and more to careful study of History, Science, and Languages. If they cannot devote it all to military exercises, let those who are in health elect to devote a certain part of their time to military exercises. I do not think we are asking too much in asking for that. There is deterioration, there is terrible deterioration; and that there is deterioration absolutely and relatively is my theory. It is the theory of medical men; it is the theory of the National Health Society. I was the other day at the Mansion House; there we had leading Britons, Bishops, Judges, Merchants, Philanthropists, people who study the slums, and people who are just as familiar with the palaces of the high-born as with the hovels of the low-lived—the people with whom I was associated are equally at home in both. They solemnly declare that the case of the British children now being born in Glasgow and in these other towns, Dundee, Newcastle, and so on, is such that if strenuous steps are not taken in regard to them and their mothers, that as their mothers cannot cope with the mothers of other races with regard to maternity, an ever-dwindling degeneration must be the result. I hope that is false. If it is false, by all means let us rejoice; but if it is true, by all means let us see that we begin recuperation from that point of view. The gallant officer asked me, When did I begin to trace this decadence? Of course there is decadence in every country. Even in Germany, if they did not take precautions by military service and by other means, there is a tendency for the population to drift away from, not to extend over, the districts covered by the Fifth army corps, the Sixth army corps and, so on, whereas there is a tendency for the population to increase and multiply in the districts covered by the Seventh corps, the Eighth corps, and so on; in other words, as the German Emperor said, there would not be any agriculture that could pay in the

east of the German Empire but for a Protective policy—I am not here now to preach Protection; I am only quoting the German Emperor—because the population is drifting towards the west. The people in one part of Germany want cheap food for the town folk, and the people in the other part want dear food to benefit the farming folk. It is admitted in Germany that the tendency of the population to drift from rural districts to urban districts is in itself a bad thing. Now that tendency has gone far since the adoption of the Manchester School of Policy without any corrective of military service. Looking on at games is not playing games or exercising. If a gentleman is of opinion that these people are *bond fide* exercising themselves at the Crystal Palace, and that the football finals are good or tend to good, I cannot agree with him, and I took the utmost pains to study on the spot and elsewhere. I believe that there is a tremendous amount of gambling and vice in connection with it—and the Bishops agree with me, and the doctors agree with me. I have heard on platform after platform—Socialist platform, Episcopal platform, Nonconformist platform, Jewish platform—and the poor Jews are about the best people in our crowds, other things being equal, having regard to their poverty. I have heard that the gambling, the betting, the sporting spirit of England now is a worse injury to the future of England than the drinking spirit of England was in 1879 and 1889. That is what I have heard. As the gallant officer said, we are face to face with tremendous responsibilities. We must look into this question of the health of the people in the centre of our Empire, that is, in the United Kingdom. It would pain you if I were to give you now all the statistics at my disposal, but they can be got anywhere. Eton life uncorrected, without strong methods being adopted to elevate the masses, to put higher thoughts into their leaders' heads, spells mischief. We had a complaint just now that we had not leaders. How can we have leaders if people think it a finer thing to bet than to read? There are the officers who play cricket and who play football, and one said to me the other day, "My father encouraged all kinds of games, but he encouraged us to read and to work and to learn to be of some use also, and to remember that our brains were not given us 'to fust in us unused,' any more than our bodies." For my own part, of course, I took every kind of exercise—to the risk of my neck very often when my horse refused to take the jump, which was bad for the horse and bad for me. We all did those things. But that is a very different thing from becoming a *spectacular game sot*. I was not reading Euripides against health exercises, and I was not reading a man like Tacitus against health exercises; I was reading them against gambling, and betting, and loafing, spectacular fooleries. That was my point. I also insist that in modern times the brain is to the muscle as nine to one. I beg you to look into this matter. Take your maps, and your geographies, and your statistics, and your Whitaker's Almanac, and see whether we are as ready for the future as we were at the beginning of the reign of Queen Victoria. If we are, I am answered. Now several questions were asked by the different speakers. The General has gone, but he asked should we have six months' notice before war? The nation that would give you a chance of preparing, if they had a *casus belli*, or wanted to fight when you were unprepared, is such a foolish nation that its prototype never yet existed in any history of any period or on any part of the world. The nation that is going to send several hundreds of thousands of its men to risk disease, pain, torture, and death, and that will give you notice, so that you may be ready to kill more of them, has not been discovered yet. And the

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English is not that nation either, if you have regard to its dealings with other folk; in fact, Napoleon complained very much of the English in 1803 and in 1807 for being so precipitate. It is nonsense to suppose that they will wait till you are ready. Get ready now. If anything were found wrong with your physical health, you know you would be very foolish people to waste a day without having it seen to. See to your national health now. If you can prove that we do not want any treatment, that we have not anything wrong with the brains and the body in a national capacity, that our children are being brought up as they ought to be, that our young men of the richer classes have lofty ideals as they ought to have, and that the masses of the people are going right, why, I am delighted beyond measure, I can assure you. But then you certainly will not require six months' notice, for you would be ready always. But you are not ready now, and other people are. If you go to war with any of these other nations, they can mobilise millions, while you, you would not have horses, guns, officers, trained sergeants, or anything else except mere numbers, and perhaps not enough of mere numbers. It was quite another matter to send an army into Spain in 1808 when you were absolutely secure at home; and it was quite another matter to cope with the voluntarily enlisted armies in the time of Frederick the Great. The gallant officer (General Rimington) asked me several other questions. He said that he agreed with me, and he mentioned about the Welsh. Of course, that race had always been habituated to obligatory military service. I have been asked why is there not a propaganda, and I have been asked if people would listen to a propaganda. There is a propaganda and people listen. There was a unanimous vote in favour of obligatory service even with the Jews last Sunday in Hackney. I was present when the thing was done. There were patriots there; they had a little shilling gallery there, and they voted for it. I was at a meeting recently in Oldham, and at another in Bury, and at another in Manchester, all three in favour of obligatory military service. The fact of the matter is that the House of Commons in many respects, and the so-called ruling classes of England, do not represent anything whatsoever except wire-pullers and hocus-pocus conjurers and vote-catchers. With regard to that other question of the gallant officer, why, you were warned again and again before the Boer War. We discussed the situation here again and again. Had all the arguments set forth in this very hall by the gallant Colonel and others been listened to, we either would have avoided that war altogether, or if we had gone into it—if the warnings of Buller (I was engaged in the Buller case, and I know something about it, as I saw all the correspondence) and if the warnings of Butler had been listened to, that war would have been over at an expense of 40 millions in money and of 5,000 men killed and wounded. I myself, out of my own friends, had 181 dead in that war, and I know very well that it cost 250 millions directly and nearly 400 millions altogether. Two-thirds of that expense could have been avoided—of that there is no doubt whatever—by the smallest attention to what was said in this hall a year before. That is another argument that in order to insure peace and prosperity you should prepare for war. Commander Caborne's remarks are always excellent. It is a fearful thing to think that our mercantile marine is largely manned by foreigners, when the very life of our nation depends on its marine. That is an appalling statement, to which too much attention cannot be directed. He also says that no notice is now required. That is proved by General Maurice to be absolutely unnecessary. When a state of mind tending to war exists

between two nations, you can immediately have war without any further parleying. Take the war between Austria and Prussia in 1866. The war broke out on 14th June, 1866, and on the 3rd July war was won—by the end of seven weeks Austria's position was ruined. Take the war between France and Prussia. Just before it broke out, it was thought to be utterly nonsensical, it was apparently ridiculous to think of it. Our Foreign Secretary declared a few weeks before that there could not be a war, and that everything was peaceful. Of course, there was that paltry argument, which was almost as ridiculous as the Casa Blanca affair just recently in Morocco, about the Hohenzollern candidature for the throne of Spain! War was declared on 19th July with shouts of "à Berlin." Sedan was 1st September, then Paris was invested after the investment of Metz, which followed a day after the battle of Gravelotte on 18th August. Within a month 400,000 Frenchmen had been taken prisoners, and the capital of the then greatest military Power invested. Yet you want to know: Is it necessary to be ready in case of war? So with the Japanese. They crossed the sea with hundreds of thousands of men, and were immediately investing Port Arthur as they pleased, threatening the Russian line of communications, and driving back Kuropatkin to Mukden—a greater distance than across England. Surely, there is no necessity to deal with that point any more. Then there was Dr. Stewart. I am very glad that he is a Scotch-Irishman—they are among the very best men in the world. I am only an Irishman. Then there was Major Home; his remarks really are useful. I come now to Major Carlton Hall; he very often speaks here, and we are glad to hear the words of wisdom we learn from him. Now I finish up with the Chairman again. The fact that he noticed my remarks favourably is a great compliment. I have the highest admiration for the Chairman. He is always interesting and instructive. His services to his country have been long continued and invaluable, as has been his help to this Institution, and his kindness to myself. Now I thank you for listening so long to what must have been to you at first somewhat aggressive and curious doctrines about what many of you perhaps thought were unassailable positions, and for your patience and courtesy.

Schwein had intended to concentrate his forces, consisting of the 1st Bavarian Army Corps, the 17th and 22nd Infantry Divisions on the line (see sketch 1). Tannenberg-Chateau Courty-Ligny-Baigneux facing S.W., and then to take the offensive against Chanzy's force, consisting of the 16th Army Corps with Michel's Cavalry Division, which was coming from the S.W., was aiming from Pains and Terminals by Villébon and Leigny, to drive back any opposing force, and gain the Orléans-Pains road about Tourny.

Scarcely not being until 7.31, the forces on both sides had commenced their movements in the dark, and about 9 o'clock began a Battle de Rencontre, which lasted long after sunset at 3.48 p.m., terminating in the complete defeat of Chanzy's army.

It was against the right of the intended line of concentration, Tannenberg-Chateau Courty, that the main attack, which was made by two divisions of the 16th Army Corps, was directed, and until past noon was carried on with courage, persistence, and determined vigour. On the left of the attack, Franc-Tireurs

CAVALRY AND HORSE ARTILLERY CO-OPERATING.

A Neglected Episode of the "People's War," 1870-71.

By Colonel LONSDALE HALE.

OF all the battles of 1870-71 there is not one more full of practical lessons for battlefield leading, and for the three arms working singly or in combination, than the little known, and still less studied, battle of Loigny-Poupry, fought on the 2nd December, 1870. Examined, metaphorically, through a magnifying glass, it is applicable for instruction in the combat under the conditions of to-day; examined, metaphorically, through a telescope turned the wrong way, the merest tyros can gain from it wise counsel as to the right way and the wrong way of utilising so small a force even as a battalion, a squadron, and a battery working together as a unit.

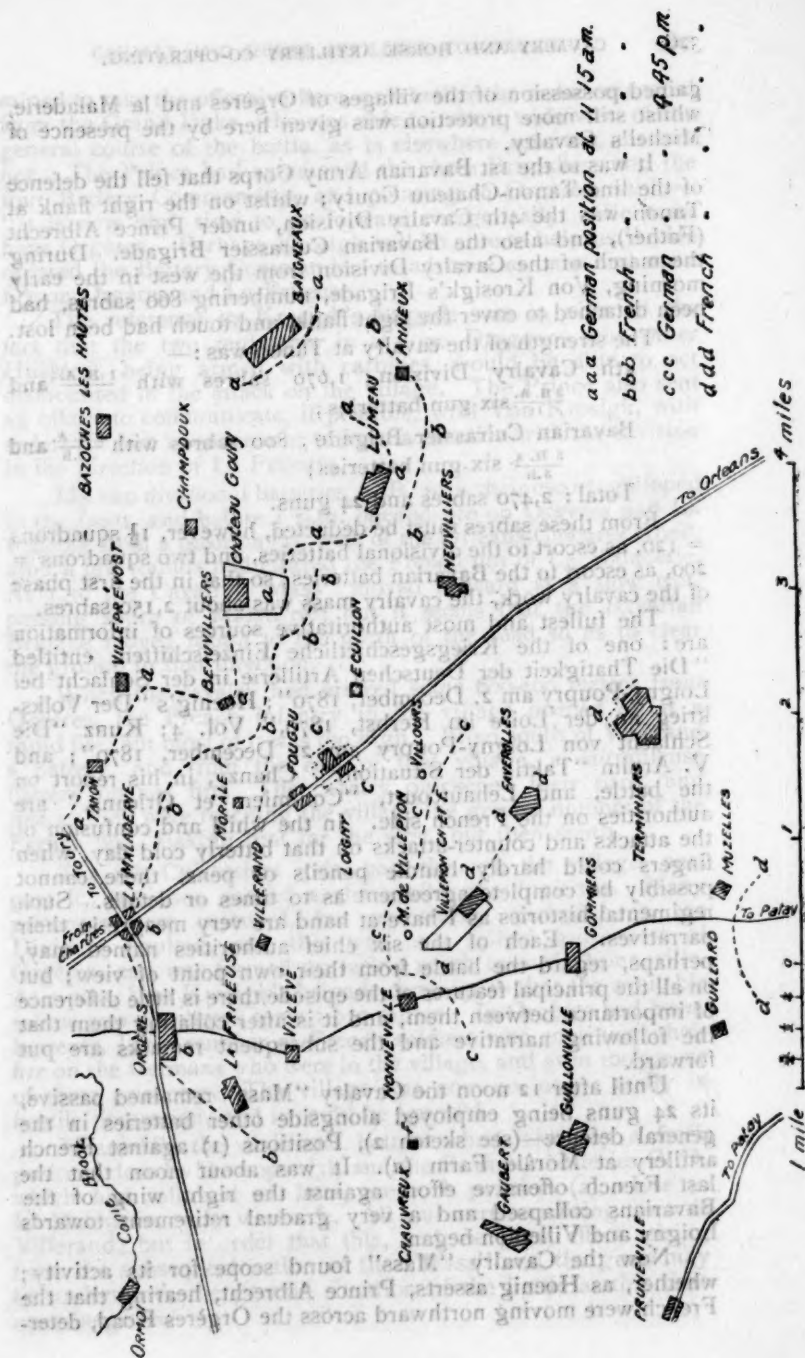
Lately we have heard a good deal of the practical training of the Cavalry Division with its Horse Artillery; in this battle we find an instance, unique, I believe, in its character, of these two arms working in combination, and with great influence on the final result of the battle. It is with this instance solely that the following notes are concerned.

For the 2nd December the Grand Duke of Mecklenburg-Schwerin had intended to concentrate his forces, consisting of the 1st Bavarian Army Corps, the 17th and 22nd Infantry Divisions on the line (see sketch 1), Tanon-Beauvilliers-Chateau Goury-Lumeau-Baigneux facing S.W., and then to take the offensive against General Chanzy's force, consisting of the 16th and 17th Army Corps, with Michel's Cavalry Division, which, coming from the S.W., was aiming from Patay and Terminiers by Villepion and Loigny, to drive back any opposing force, and gain the Orleans-Paris road about Toury.

Sunrise not being until 7.51, the forces on both sides had commenced their movements in the dark, and, about 9 o'clock, began a Bataille de Rencontre, which lasted long after sunset at 3.48 p.m., terminating in the complete defeat of Chanzy's army.

It was against the right of the intended line of concentration, Tanon-Chateau Goury, that the main attack, which was made by two divisions of the 16th Army Corps, was directed, and until past noon was carried on with courage, persistency, and determined vigour. On the left of the attack, Franc-Tireurs

Sketch 1



gained possession of the villages of Orgères and la Maladerie, whilst still more protection was given here by the presence of Michel's Cavalry.

It was to the 1st Bavarian Army Corps that fell the defence of the line Tanon-Chateau Goury; whilst on the right flank at Tanon was the 4th Cavalry Division, under Prince Albrecht (Father), and also the Bavarian Cuirassier Brigade. During the march of the Cavalry Division from the west in the early morning, Von Krosigk's Brigade, numbering 860 sabres, had been detached to cover the right flank, and touch had been lost.

The strength of the cavalry at Tanon was:—

4th Cavalry Division; 1,670 sabres with $\frac{1 \text{ H. A.}}{5}$ and $\frac{2 \text{ H. A.}}{11}$ six-gun batteries;

Bavarian Cuirassier Brigade; 800 sabres with $\frac{1 \text{ H. A.}}{3. B.}$ and $\frac{2 \text{ H. A.}}{3. B.}$ six-gun batteries;

Total: 2,470 sabres and 24 guns.

From these sabres must be deducted, however, $1\frac{1}{2}$ squadrons = 120, as escort to the divisional batteries, and two squadrons = 200, as escort to the Bavarian batteries; so that in the first phase of the cavalry work, the cavalry mass was about 2,150 sabres.

The fullest and most authoritative sources of information are: one of the *Kriegsgeschichtliche Einzelschriften*, entitled "Die Thatigkeit der Deutschen Artillerie in der Schlacht bei Loigny-Poupry am 2. December, 1870"; Hoenig's "Der Volkskrieg an der Loire im Herbst, 1870," Vol. 4; Kunz "Die Schlacht von Loigny-Poupry am 2. December, 1870"; and V. Arnim "Taktik der Situation." Chanzy, in his report on the battle, and Lehautcourt, "Coulmiers et Orleans," are authorities on the French side. In the whirl and confusion of the attacks and counter-attacks on that bitterly cold day, when fingers could hardly handle pencils or pens, there cannot possibly be complete agreement as to times or details. Such regimental histories as I have at hand are very meagre in their narratives. Each of the six chief authorities named may, perhaps, regard the battle from their own point of view; but on all the principal features of the episode there is little difference of importance between them, and it is after collating them that the following narrative and the subsequent remarks are put forward.

Until after 12 noon the Cavalry "Mass" remained passive, its 24 guns being employed alongside other batteries in the general defence—(see sketch 2), Positions (1) against French artillery at Morâle Farm (a). It was about noon that the last French offensive effort against the right wing of the Bavarians collapsed and a very gradual retirement towards Loigny and Villepion began.

Now the Cavalry "Mass" found scope for its activity; whether, as Hoenig asserts, Prince Albrecht, hearing that the French were moving northward across the Orgères Road, deter-

mined to take the offensive here, or whether the order emanated from the Grand Duke, who was able to take a wide view of the general course of the battle, as is elsewhere asserted, matters not. The Prince had summoned the three Brigadiers and the four Battery Commanders, and pointing to Orgères, said:—"It is now high time to go forward energetically. We must have Orgères. Perhaps Krosigk will be able to help us." He ordered the Battery Commanders to advance at once and open fire on Orgères and La Frileuse.

The reference to Krosigk's brigade was in view of the fact that the two regiments in it (one Dragoons, the other Hussars), being armed with carbines, would be able to act dismounted in the attack on the village. The Prince also sent an officer to communicate, if possible, with Von Krosigk, with orders for him to endeavour to form a junction with the division in the direction of La Frileuse.

The two divisional batteries A, B, with their escort, galloped to the front, and before 1 p.m. opened fire on Orgères and La Frileuse from a position (2), west of the Orleans-Chartres Road, after a few rounds had cleared the French out of La Maladerie. At 1.30 the Cavalry "Mass" moved forward at a slow trot, passing south of Maladerie; but it seems that the Bavarian Brigade moved round to the north of the road so as to clear the ground in that direction.

When the cavalry had arrived some 600-400 metres from Orgères, the French infantry in the village opened on it a rapid fire, but most of it was too high. From south of Villerand a battery, and from the east of that village, a mitrailleuse battery opened fire. The cavalry quickened their pace, and just as they were reaching the village the greater number of the French fled, making first for the west, but then south.

The 5th Cuirassiers rode, part through the village, part past it, and then ensued a chase after the fugitives. Many prisoners were captured, but necessarily confusion in the Division resulted, and this was now rallied south-west of Orgères, and was formed up facing south towards Nonneville. At 2 p.m. Von Krosigk's brigade came up so that the available sabres now numbered some 3,010 sabres. In Orgères had been, however, left a number of French soldiers who continued their fire on the Germans who were in the village, and even took some of them prisoners. The village was now no longer really in hostile possession, and it could be ignored.

Meanwhile the divisional batteries had taken up a fresh position close by the copse (3), and the Bavarian batteries C, D, which had followed on later, were in position (2), close to La Maladerie, on its west side. All four were now firing towards Villerand; but in order that this, and the great effect arising from the subsequent action of the "Mass" and the guns may be understood, the general situation of the battle at this time must be given.

Along the whole line Tanon-Chateau Goury, the French attacks, which had commenced about 9 a.m., had been thoroughly beaten back, and there had ensued a change of rôles, the Germans now becoming the attackers, and driving the French slowly back; at about 1.30 the Germans gained possession of Morâle Farm, the French falling back defeated to a defensive position, in which first Loigny and later Villepion Chateau-Faverolles were the central points, and from which, unless reinforcements speedily arrived, they could continue their retreat southward by Terminiers and Patay.

On the French left flank the Franc-Tireurs were fleeing before the German cavalry, and Michel's Division had already retired to Nonneville and Gommiers to cover the line of retreat. Villeraud was still in possession of the French, and between the village and Villepion Mill the French had formed a defensive flank of two battalions, the 1st and 2nd of the 33rd Mobiles, and a Mitrailleuse battery. Later on their battalions fell back on Villepion Chateau. Small villages or hamlets were the only obstacles to movement on the wide plain in front of the cavalry.

The divisional batteries at the Copse, and the Bavarian batteries at La Maladerie, were now in action against the retreating left flank of the enemy, and even against his rear, thus greatly facilitating, as will be seen from the position (b) of the French batteries, the onward progress of the right of the Bavarian Corps in the Tanon-Morale Farm-Loigny direction.

The Cavalry "Mass" was now formed up in three lines and advanced between Villeve and Cornieres towards Nonneville. The batteries were ordered to join the "Mass"; this they did, but very soon they worked so independently of it that the Cavalry "Mass" and the guns must be dealt with separately.

During the advance, the C.S.O. of the Division was in favour of employing the cavalry in attacking the numerous detached hostile groups of infantry straying about in confusion. The Prince, however, found there no definite object for attack, and as he hoped to find one later on, he did not accept the suggestion. No doubt, had he let loose his squadrons, the confusion among the enemy would have become worse confounded; but on the other hand, no chance must be given to Michel's Division to take him later on at a disadvantage, and perhaps in a somewhat crippled condition.

During the onward trot many prisoners were taken, but no large collected force; the mere approach of this large body of cavalry sufficed to clear the country to the west; Nonneville, Gaubert and Guillonville were abandoned by the French, who fell back on Faverolles, Villepion and Villepion Park.

The Prince now hoped to turn the Villepion position by advancing towards Terminiers, but the losses from artillery and infantry fire of the 17 French A.C. now coming up from the south was too heavy, so he led the cavalry back to a position between Nonneville and Gaubert, where a long halt was made.

The actual position was between Chauvreux Farm and Guillonville (3), facing east, and here the cavalry remained in a watching position till 4.30 p.m. (sunset was at 3.48), when superior orders called it back from the battlefield. One brigade was left to pursue, but this brigade, coming on a closed body of the enemy, retired northward, giving up all touch with the French.

The action of the individual batteries during these 2½ hours (2 p.m. to 4.30 p.m.) must now be given. After Villerand was evacuated by the French $\frac{1 \text{ H. A.}}{8}$ A moved from the Copse A at first with the cavalry and then in a S.E. direction, to the south side of Villerand (4), $\frac{2 \text{ H. A.}}{11}$ B and the Bavarian batteries remaining near Orgères. This seems to have been the position at 2 p.m., by which time the advancing 1st Bavarian Division had captured Villerand.

Somewhat later $\frac{2 \text{ H. A.}}{11}$ B joined $\frac{1 \text{ H. A.}}{11}$ A, but took for its target French guns north of Villepion (c). After this it rejoined the cavalry in their watching position to the west. $\frac{1 \text{ H. A.}}{8}$ A went S.W. along the Villerand-Nonneville road and came into action (5) against French guns (d) at Villepion Mill. Meantime the Bavarian Batteries C, D had come straight across country some 5,000 yards at a sharp trot, and unlimbered south of Nonneville (3) against the same target. The combined fire silenced the hostile artillery, which limbered up and retired. $\frac{1 \text{ H. A.}}{8}$ A now placed itself (6) on the right of the Bavarian Batteries, and the three took as target French guns N.W. of Faverolles (e), compelling at 3.15 p.m. these to retire.

About 4 p.m., as it began to darken, at least three French cavalry regiments suddenly appeared S.W. of Gommiers. Whilst the German cavalry prepared to attack, $\frac{2 \text{ H. A.}}{11}$ B emerged from its temporary retirement, and opened fire (5) on the enemy, whilst $\frac{1 \text{ H. A.}}{8}$ A, leaving the Bavarian Batteries, came back some 1,200 yards (7) to aid its companion battery at a distance from it, however, of some 1,300 yards.

The hostile cavalry at once fled, and the divisional batteries proceeded to take up together a position (6) and (8) just south of a gravel pit, where one of the Bavarian Batteries D joined them at the pit, and on French artillery, S.W. of Faverolles (f), opened a fire so effectual as to reduce the French Commander, Admiral Jauréguiberry, to believe that an overpowering enemy was threatening his left flank. In eight different positions had $\frac{1 \text{ H. A.}}{8}$ A and in six different positions had $\frac{2 \text{ H. A.}}{11}$ B come into action successfully during the day against the enemy, and now at nightfall neither the Divisional nor the Bavarian batteries could do more—their task was over.

NOTE.—The expenditure of ammunition by the most active battery, $\frac{1 \text{ H. A.}}{8}$ during the day was only 307 rounds.

REMARKS.

The foregoing narrative is that of the combined action of horse artillery and cavalry working under conditions most favourable for effective action. They were on ground well suited to the work of the two arms, and on the flank and rear of a defeated enemy gradually becoming more and more demoralised. The effectiveness of the work is as frankly admitted by French writers as it is claimed to be by German writers. The following remarks on the episode are in the main those of Hoenig; but they are here and there supplemented from other sources.

The cavalry force under Prince Albert achieved great success, and that without once moving at a gallop or deploying for attack; the mode of combination in the working of the two arms serves as a model for them in the future. The necessary stipulation for this common working is reciprocal freedom and independence, thus the exact opposite of what was so long taught and which to-day (1896) is not seldom seen in practice. Of course, these arms can only utilise such freedom and independence if each is convinced that it can accomplish any tactical work which is demanded of it; if each understands its own vocation and is impermeated by the feeling that come what may, it will rise to the occasion. When this is the case, and the leader is enterprising, daring, full of knowledge, and a man of sound judgment, cavalry with horse artillery will do great things; only then will the freedom of action by the lower leaders be of use for unity in solving the task common to both.

The Prince, at the very commencement of the movement, issued orders thoroughly clear. Everyone knows that the first object is a junction with Von Krosigk's Brigade, then mutual co-operation against the enemy's line of retreat. For both arms the last named was the "directive" of the day, but first the junction with the absent brigade must be effected, and the taking Orgères and la Frileuse was a necessary preliminary. The order to open fire on these villages was the one solitary direct order given to the batteries during the day.

That the attack on Orgères was a most dashing exploit none can doubt, for not one single bearer of a sabre could, as he neared the village, have had the faintest hope that the mere moral effect of the nearing of cavalry could induce even irregular and demoralised infantry to abandon the security of walls, and to run away from behind them. Possibly, probably, the introductory artillery fire had a good deal to do with it. And after this successful episode each of the four batteries is free to play the game as it likes, but in consonance with the general purpose.

According to the target each selects, each changes and chooses its own position; sometimes they work separately, sometimes in combination, but always to the same end, boldly and in unison to act against the flank and rear of the enemy.

But this was not all, for, as Deflandre's Division of the 17th French H.C. was coming up to the field of battle late in the afternoon, their fire was so effective that it drew him away from his direct line of march and then delayed his return to it. Finally, they are firing from a position N.W. of Gommiers in rear of the enemy. Their activity and their great mobility helped to deceive the enemy as to their real strength; naturally this was unduly magnified by the dispirited foe; he imagined that there were large hostile forces on his left flank, and greatly to their appearance here is due the final loss of the battle.

Doubtless, it may seem as if the Cavalry "Mass" itself may be ignored as of any influence in the result; and Prince Albert himself seems to have been inclined to this view. But, as Hoenig justly remarks, it was the presence of the cavalry, not close at hand, but, in that open country, within easy reach, that enabled the batteries to utilise their mobility and perfect freedom of action. It is impossible to separate the one arm from the other in the common work. And not only did the cavalry by its presence afford perfect security to the batteries in the performance of their independent work, it neutralised Michel's Division and helped by its presence on the flank and rear to increase the demoralisation of the French.

V. Arnim touches very cautiously on the passive attitude of the "Mass"; but he thinks that if cavalry, dismounted, held some of the hamlets or villages, these would have served as a safe base for activity and cover for retreat.

Since putting together the foregoing remarks there has come into my hands a copy of the second edition of a work "Souvenirs d'un Mobile de la Sarthe 33^e Régiment Armée de la Loire, 15 Corps, par D. Erard, Sous-Officier à la 4^e Compagnie du 2^e Bataillon." The book is of very great value to those who care to learn about the details of the "People's War," and to try to understand the strength and weaknesses of Territorial Forces engaged in defending their country against the highly-trained regular troops of the army of the invader. But here I refer to it and quote from it only with regard to its bearing on the vexed question of the leading of the Cavalry "Mass" and the effect produced by the German H.A. batteries the 2nd December. As already mentioned, it was two battalions of the 33rd Regiment that during the gradual forced retirement of the French were on the extreme left of the French line in the neighbourhood of Villerand-Villepion Mill, and Erard was here. "We had made an orderly retirement" (he says, p. 73) "as far as the Villepion Mill, holding the enemy in his attacks. But whilst we were harassed from towards Morâle, having great difficulty in holding our own, the Germans had moved their cavalry. We were out-flanked on our left, and shells came more and more from this direction. Among us fell some of them which seemed to come from batteries in rear of us, and which took us not only obliquely, but fired into our

backs. Already anxiety manifested itself in the ranks, and it was asked whether we were not turned, and going to be surrounded at Villepion.

"At this moment occurred one of the most interesting and exciting episodes of the day. A column of cavalry, in which could be seen cuirassiers and lancers, seemed to be facing us, and was a few hundred metres on our left front, and coming towards us in perfect order, and at a rather slow pace. The rays of the setting sun were reflected from the helmets and the cuirasses, the pennons were fluttering in the wind; what were these people?

"'It is a French reconnaissance coming back,' said some; 'don't you see that if they were German cavalry they would manœuvre differently and certainly more quickly,' they added. We were not fully reassured; the pennons did not seem altogether like those of French lancers. Some among us of good sight tried to make out the uniforms, but they hesitated before giving an opinion, and their indecision was apparent.

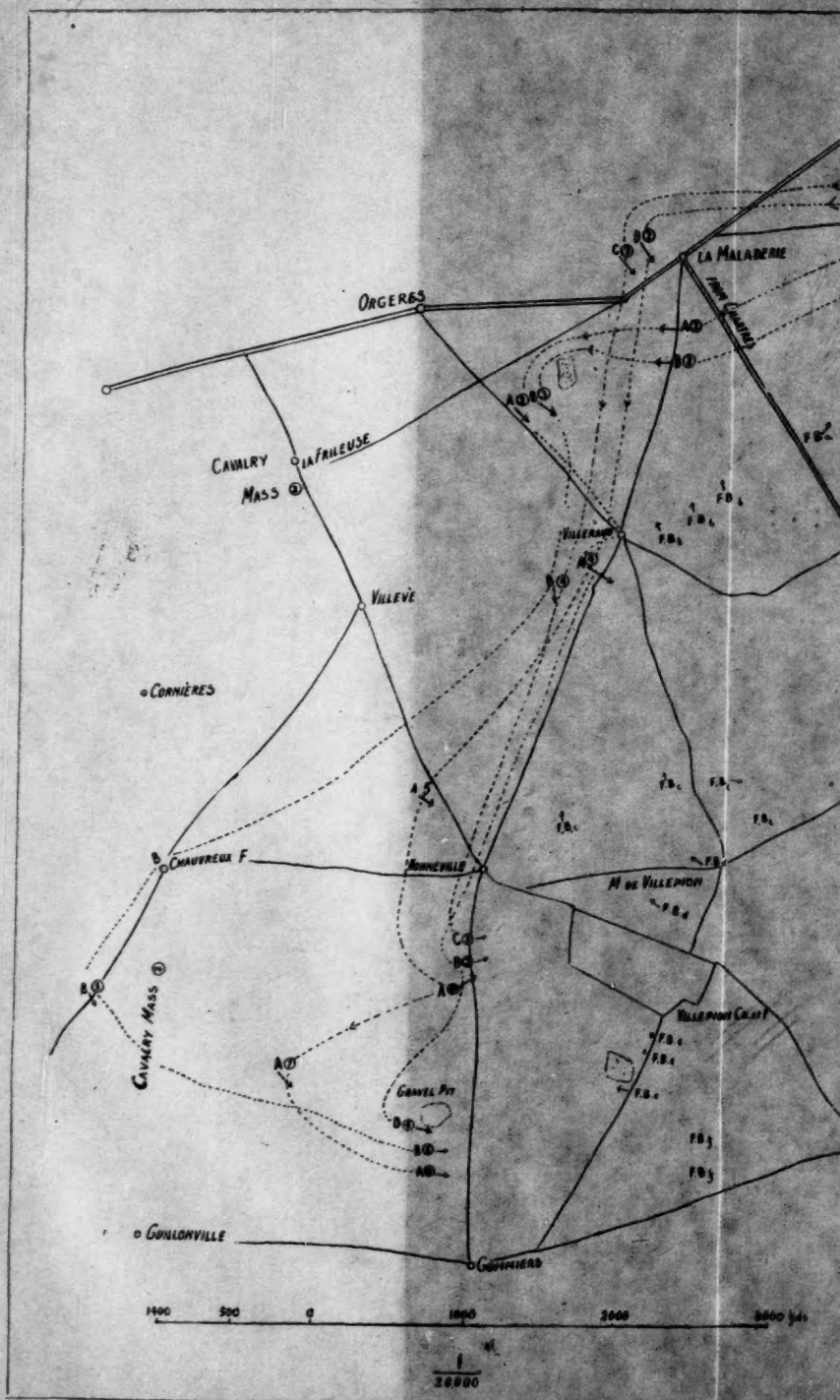
"Suddenly one of our officers, who was looking through glasses, shouted: 'No, they are not French; it's German Cavalry. Look out, look out! Form square; we are going to be charged. They will be on us in a minute.' 'There is no time to be lost—form square,' repeated the officers, and already some shots had been fired from our ranks in the direction of the cavalry, which became more and more disquieting.

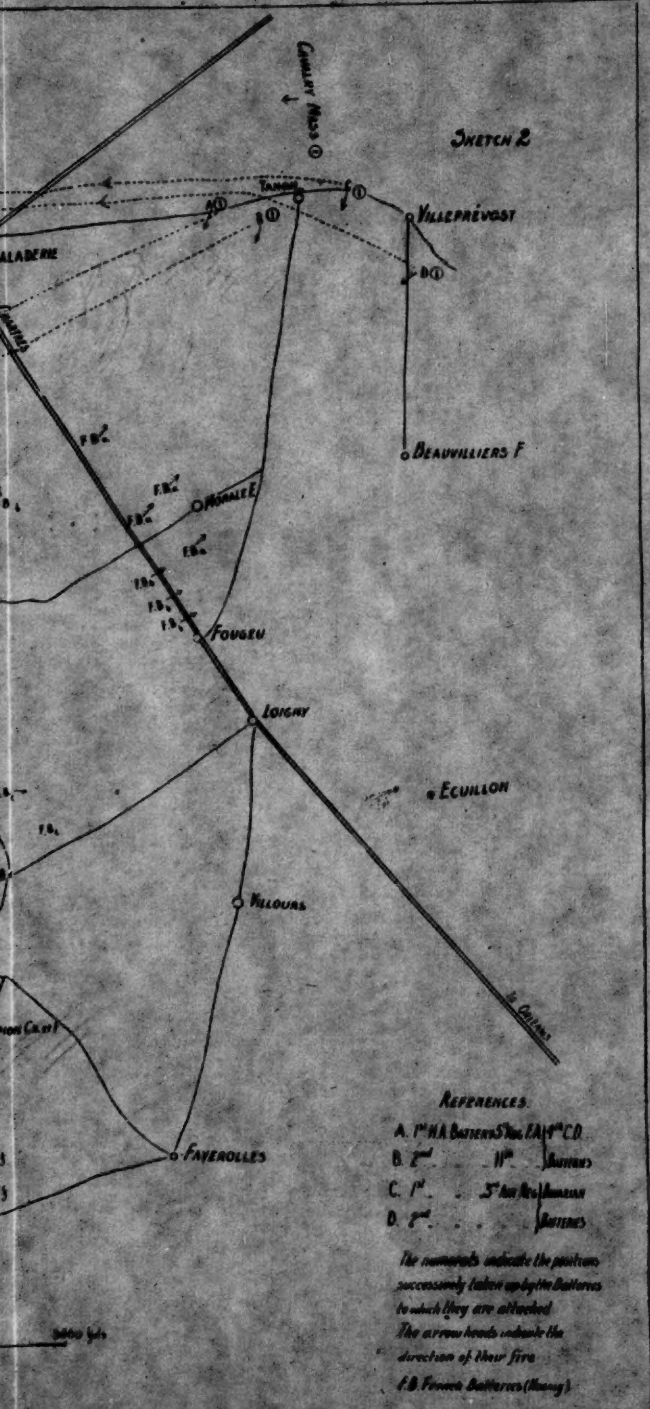
"An officer, a good shot, seized a chassepot from a man and let fly. All this passed in a moment. Moreover, we were not destined to remain long in doubt. The cavalry were a mask to some artillery, and, opening their ranks, several rounds 'de mitraille' were fired one after another."

[No such intentional co-operation took place, though what occurred appeared to Erard as intentional co-operation. The 1st R.A. had, as already stated, followed the cavalry at first; the cavalry seems frequently to have altered somewhat the direction of their line of march; the cavalry had no hostile intentions as regards the 33rd, even if it saw them, which is very doubtful. But it would seem that just at the moment when the cavalry was changing direction, this particular battery took an independent line, and emerging from the "Mass," came into action, probably at position (5).]

"The case shot fired at short range burst over our heads and produced a certain amount of disorder. 'Form square,' repeated the officers and non-commissioned officers, endeavouring to get this done. But the men, who seemed to lose their presence of mind, got huddled up, and the movement was badly carried out. However, it was done in a sort of way, and we finished by presenting to the enemy a row of bayonets, more or less in a line.

"We were in a very critical situation. Every time I recall it to my mind I am more and more certain that it hung on a





thread whether or not we were to be charged by the German cavalry; and then what resistance in this encounter could have been offered by our lot of unsteady *moblots*, without sufficient cohesion and with ranks hardly formed?

"We should have been cut down and have disappeared under the horses' hoofs. The Prussians hesitated, probably owing to our proximity to the walls of the park, behind which might be our shooters sheltered, and who would have decimated both men and horses. [My own impression is that at this time the park was not held by the French, nor were the walls here prepared for defence.]

"In this moment of hesitation on the part of the enemy, of trouble and confusion among ourselves, while we were hurrying to form the square, suddenly we heard on our right a well-known sound. . . . It was from two mitrailleuses of a battery near the Villepion Windmill. The officers in command had at the exact moment seen the danger we were in, and they saved us. A few rounds sufficed. The effect produced on the cavalry was enormous. Soon the hostile columns rapidly retired leaving men and horses on the ground. . . .

"We were pressed on all sides, by the enemy in front, on the left and on the left rear, whence shells ever coming more and more, and which gave us great disquietude. Were we really turned?"

The battalion somewhat later fell back on Villepion Park and helped to loophole the walls.

So much for the invaluable contribution by Sous-Officier Erard to a more full understanding of the battle situation when nearing sunset. Erard tells us that in his opinion the fate of the 33rd hung upon a thread. Obviously it is impossible to determine from the several narratives with any degree of certainty the actual and relative positions of the several batteries and other units of the defeated retiring 16th Army Corps and of the newly arriving 17th Army Corps at this particular moment; but to me it is very clear that on the ground, beyond the two battalions of the 33rd, there was a chaotic mass of disordered troops retreating south-west, intermingled with fresh units of the 17th Army Corps making in the opposite direction for Loigny and Villours. That any French troops were in Villepion Park itself I very much doubt, and I believe that had even one regiment of the "Mass" been let loose in the direction of the 33rd, even on a sort of "Balaclava charge," the moral effect on the French actually in the triangle, Villepion-Loigny-Villours, would have in all probability been disastrous. It was a remarkable instance of the "Tactical Fog of War" on the battle-field, the fog absolutely concealing from Prince Albrecht the splendid chances offered to him, and open to him to take advantage of.

There were several Englishmen travelling in the first-class saloon, whilst amongst the second-class passengers there were, in addition to Europeans, a number of Asiatics, Americans, Malays, Chinese, and two Japanese.

RASPLATA.

("THE RECKONING.")

By *Commander VLADIMIR SEMENOFF, Imperial
Russian Navy.*

Translated, by permission of the Author, by L. A. B.

(Continued from February JOURNAL, p. 213.)

PART II.—THE VOYAGE OF ADMIRAL ROJESTVENSKY'S FLEET.

CHAPTER I.

FROM SAIGON TO LIBAU—THE SQUADRON LEAVES THE OUTER HARBOUR—FIRST IMPRESSIONS—CONVERSATION WITH A FORMER SHIPMATE—A PASSENGER ON ADMIRAL ROJESTVENSKY'S STAFF—"WAR EXPERIENCE GAINED AT FIRST HAND MUST BE MET WITH SCEPTICISM."

THUS M. Christian (a Swede, and naturalised French subject), M. Schoeschling (German by birth), and the two Russians from the Baltic provinces, Meier and Schulz, started successfully from Saigon on 2nd September, on board a "Messageries Maritimes" steamer.

Unfortunately, none of them kept a diary on the voyage home, consequently I do not propose to give its detailed description, as I have promised the reader to keep strictly to documents.

As in this case I can only base my account on reminiscences, I shall be brief.

The danger which threatened the "travellers" consisted in the fact that any Japanese auxiliary cruiser, which had received information on the subject, could stop our steamer and demand the handing over of any "contraband of war." Naturally, the identity of the persons affected would have to be determined first. Unfortunately, this would not have been difficult, as the involuntary "travellers" had repeatedly been photographed at Saigon before they knew what was in store for them. Moreover, the French declared that the town contained a large number of Japanese spies; whilst from Singapore a report had been received to the effect that Japanese cruisers were watching the Straits of Malacca.

The large majority of the passengers were naturally French, but we also had representatives of other nationalities on board. There were several Englishmen travelling in the first-class saloon, whilst amongst the second-class passengers there were, in addition to Europeans, a number of Asiatics, Anamites, Malays, Chinese, and two Japanese.

Chiefly for the benefit of the latter, a certain comedy was enacted on board, in which not only the "travellers" took part, but also the captain of the steamer, numerous French officers going home on leave, and M. Deloncle, the French deputy for Cochinchina, who was returning to Paris.

These had all been repeatedly on board the *Diana*, but they evidently had a very bad memory for faces. We only made their "acquaintance" some time after sailing, and our relations with them remained quite formal—at least outwardly. Our kind travelling companions almost overdid the thing in trying to preserve our secret; still, they attained great perfection in this. No sooner did a "suspicious person" appear anywhere within earshot than they changed the subject and tone of the conversation so rapidly, and in doing so cut such unexpected "capers," that we were often tempted to laugh aloud and express our admiration. Thus one day the French captain was criticising Kuropatkin's dispositions at Liao-yang, speaking with much animation, but in a low voice. Suddenly, he pointed at "M. Meier," who was walking up and down the deck (he was short and very dark), and continuing to speak in the same tone, but still more mysteriously, he said: "This Baltic-Russian appears to me very suspicious—possibly a Japanese spy. They seem to be swarming everywhere." It turned out that one of the Englishmen had approached, and had sat down not far from us. An officer of the Foreign Legion, who spoke Swedish fluently, never lost an opportunity of practising this language. He used to tell M. Christian how he had once spent several years in Sweden. The latter used to feel very uncomfortable on these occasions, but replied boldly, mixing up Danish, Swedish, and German words, and trying to give the impression that he was anxious, from sheer politeness, to carry on the conversation in French.

Needless to say, all conversations in our inner circle, and whenever there was no danger of their being overheard by others, were on the war. Unhappily, though as was to be expected, our friends had no more information about the later events than we. The two newspapers which were published at Saigon did not regularly take in Reuter's telegrams (for the sake of economy), and consequently did not reproduce them textually. And with the Havas agency they had also only a very limited agreement. Telegrams therefore only occupied a few lines in their columns, and that not even daily. Their news was generally extracted from the home papers, which arrived once a week, and were from twenty-two to twenty-five days old. As regarded the Second Squadron, its composition and the period of its sailing, the French were not able to give us any information; they even asked us our opinion on it generally. One of our fellow-travellers told us that he had heard privately from Paris that Russia was negotiating about the purchase of certain armoured cruisers—four Argentine ships (*Kasuga* type) and two Chilians. It was, however, uncertain

whether there were any chances of a favourable settlement. Besides this, there was much talk of armed merchant cruisers.

We had already heard about these cruisers at Port Arthur. There we were told—Heaven knows on what this was based!—that the best steamers of the Hamburg-American Line had already been bought, and might appear any day on the trade routes leading to Japan, in the China Sea, and in the Pacific. The mere rumours of the possible appearance of these steamers produced a tremendous effect on the rate of freight. Soon, however, all these rumours vanished.

It is interesting to note that the French anticipated just the same activity from our auxiliary cruisers as our officers in Port Arthur had pictured to themselves.

"*Tenez, mon commandant!*" the first officer once said, in conversation with me. "I am a seaman of the Merchant Service. I would gladly undertake to bring everything, which might be required to Vladivostok and to Port Arthur. But I should not be such an idiot as to have my papers made out for blockaded ports on leaving Marseilles. Is there no port in the neighbourhood with an agent to whom the cargo could be consigned? Not a soul on board, except me, would know the ship's real destination. My officers, my crew, could take an oath, with a perfectly free conscience, that we had no contraband of war on board. And as to papers—there would not be a single document in the least compromising. You may object: 'But how about the cargo? the guns?' What nonsense! Why should I not put all this down to the account of the German Government at Kiaotchow? (of course, assuming that the German Government gave its consent). I am sure this is what those do who take contraband of war out to Japan. . . . Ships carrying contraband of war should be caught in the latter part of their voyage, on their way to the final port of destination. Then there can be no excuses, the facts are clear. But to stop them thousands, yes, ten of thousands of miles from their goal . . . that is nonsense. This is simply an offence against the most elementary principles of cruiser warfare. . . . It only leads to misunderstandings, and especially, if you will forgive me for saying so, such as are prejudicial to Russia.¹ Who has charge of these things with you? *Surtout, qui tient les cordons de la bourse?* . . . In my opinion, there are only two explanations possible—either it is a case of *sancta simplicitas*, in presence of which one forgives everything (but then the choice was bad), or *c'est de la trahison*. . . . I go further. Your steamers *Terek, Kuban, Ural*, which on being turned into auxiliary cruisers would, in the German Navy, have been armed with fourteen 6-inch guns, have received from you a toy armament, and any despatch vessel of 2,000 to 3,000 tons of equal speed can destroy them. What does it mean? How is this to be explained? *C'est de l'ignorance, ou la bourse.*"

¹ This was actually the case with the *Malacca*.

I became quite enthusiastic over this sunburnt "sea-dog," ever calm and cool, who could get so keen, who could take to heart so much the faults of those who directed the operations of the naval forces *de la nation amie et alliée*. It was especially characteristic of him that he never even attempted to criticise the actions of our fighting fleet. As to the latter he only asked questions, but as regarded the operations of the auxiliary cruisers, the field of activity which might be his in time of war, there he felt himself to be an expert, and expressed his views without reserve. He did not understand. . . . No! He could not understand. "But was there no one, *le plus ordinaire des vrais marins*, who was bold enough to say to the Emperor himself: '*Sire, ce n'est pas comme cela qu'il faut faire*?'"

Touching simplicity!

"*Et puis ces bruits qui courent sur cette affaire? Ces pots de vin? Que ce passe-t-il? Que fait on? Est-ce vrai? Voyons, mon cher commandant, dites le moi!*"

What could I tell him? . . . I myself did not know anything very definite, but after I had read the newspapers and had heard of the rumours, a vague feeling of doubt as to the future crept over me.¹

At Suez, Bernard Christian received a telegram (in French):—

"To Libau by the shortest route."

We consulted friends, we searched the guide-books—the longest route, measured by distance, but the shortest by time, was the one *viâ* Marseilles.

We decided upon taking it.

At Port Said, where the steamer stopped some time for coaling, we saw the *Petersburg* and *Smolensk*.² Only from a distance; they would not let us come near. There they lay, as if infested with the plague, cut off from the rest of the world by cordons by land and water. . . . It was the first time I had witnessed such degradation of the Russian flag. . . . Thanks be to the French, they organised a regular watch to prevent our getting sight of the English local papers, in which the *Petersburg* and *Smolensk* were styled pirates pure and simple; moreover, it was suggested in solemn earnest (so as to prevent their ever again being tempted in the same way) that these vessels should be driven out to sea, fired into, and sunk with all their crews, without giving quarter, in satisfaction of the just indignation which all civilised nations felt, and as a warning to any other barbarians.³

We only remained a few hours at Port Said (so far as I recollect, from 9 p.m. to 2 a.m.), and then steamed on.

¹ I will not anticipate, and therefore abstain from giving from my diary any news which I only received later.

² ["Volunteer Fleet" steamers, escaped from the Black Sea.]

³ [It would be interesting to know what paper, printed in English, could have published such an article.]

In the Mediterranean we were unlucky. The next day our engines broke down. They were repaired with the ship's own resources, but henceforth we were only able to steam 12 knots, and had to stop several times for adjustments. The result was that we reached Marseilles a good twenty-four hours behind time. Here we were met by a fresh difficulty. The Mistral was blowing its worst. It was therefore impossible to enter the inner harbour, and in consequence of a strike of dock labourers, the Steamer Company could only beat up two small steam launches, manned by non-strikers, with which to land the passengers and their luggage. We ourselves and our handbags got on shore the same day, but we could not count on getting our baggage, which had been stowed away below, for another twenty-four hours.

And yet we had orders to go to Libau by the shortest route. Certain travellers, known to the reader, who now no longer attached much importance to preserving their "incog.," were tearing about in the steamer, and were nearly involved in a serious quarrel at the last moment.

"This is not a passenger steamer! It is a man-trap!" B. Christian hurled at the captain. "Can I start by the express to-night? Dites, mon commandant?"

"Ah—la—la!" replied the captain. "Suis-je le bon Dieu? Dites mon autre commandant!"

"Peace, peace!" With these words M. Deloncle intervened between the disputants. "*Voyez bien—c'est la force majeure!*" he said to the one party. "*Pour ces braves, des heures, des minutes perdues—c'est la question d'être en retard pour la Seconde Escadre!*" . . . thus he pacified the captain, who had already spoken of obtaining satisfaction.

We went on shore, and straight to the Consulate. In consequence of the Mistral the temperature had fallen considerably, and the thermometer showed 60° F. The ladies we saw in the streets had wrapped their fur boas round their necks. Our tropical costume therefore attracted a good deal of attention. Little boys made remarks about it and dogs barked at us. At the Consulate the reception was cool, but when I had explained who we were and whence we came, this changed at once.

"Where is the second squadron?"

"I don't know. But probably still in Russia."

"When does it sail? Shall we get to Libau in time if we start *via* Paris-Berlin to-morrow evening?"

The Consul-General (a very sympathetic and amiable old gentleman) only shrugged his shoulders.

"Very well. Then we'll manage it like this. Please send off at once a telegram which I am going to write to the chief of the Naval General Staff. To-morrow evening we start—it is impossible to do so sooner—and the day after to-morrow morning, at the Embassy in Paris, we shall be told by what train to proceed and for what place."

"Capital! Just you write the telegram, and I'll see to all the rest." The telegram was despatched and all necessary directions given.

"And now, sir, tell us kindly where we can get some ready-made clothing, more suitable for October than these."

"Yes; I confess, I did not know . . . in fact I was rather astonished," the Consul-General said with a smile. "Of course you must first of all get more suitable clothes."

With the kind (one may say, truly friendly) assistance of the Consul-General's secretary, who had long been a resident in Marseilles, we first found a good hotel, and then "clothed" ourselves so expeditiously, that by dinner time (that is, in about two hours) we no longer aroused the suspicions of the peaceful citizens by our outward appearance.

Meier and Schulz suddenly—I don't know why—exhibited an unwonted degree of independence, declared that I was no longer their superior, and started next morning by the Vienna express.¹

We, the remaining two, stuck to our plan and started north in the evening. At 9 a.m. next day we arrived in Paris and at once went to the Embassy. Our reception by the officials was decidedly cool (they probably thought we were countrymen of theirs, who had gambled away their fortune in Monte Carlo); they said:—"His Excellency does not receive any one so early. . . ." When, however, I had written on the back of B. Christian's card—"A commander and a sublieutenant of the *Diana*," all doors opened wide for us.

The Ambassador—Nelidoff—received us very amiably, but as to the Second Squadron he was unable to give us any definite information, although his own son was serving in the *Össliabia*. The telephone was worked, a messenger despatched to the general post and telegraph offices, and at last I got a telegram, addressed to B. Christian:—

"To Libau as quickly as possible."

At 1 p.m. we started by the Nord express for Berlin.

At 10 p.m. on 12th October, twenty-seven days after sailing from Saigon, B. Christian and F. Schoeschling, *étrangers de distinction*, stood behind their luggage at the Russian frontier station Wirballen, patiently waiting for their turn to have it examined by the customs' officials, when suddenly a colonel, booted and spurred, entered the room.

"The officers of the *Diana*?—Let me introduce myself. I hope you will have some supper with me. You have time—What? Your luggage? Just hand over your keys and everything will be seen to. They won't take anything away from you. Anyhow, you are not likely to have anything which could be confiscated."

There was no hesitation on our part, and, sick of the railway fare, we tackled the "*Sakuska*" [Russian *hors d'œuvre*] and

¹ They arrived too late. Meier later joined Nebogatoff's squadron.

the chicken *à la polonaise* so determinedly that the colonel, who had evidently hoped to get much news out of us, was visibly disappointed.

"You are going straight to St. Petersburg?"

"No, to Libau."

"To Libau? Then you need not hurry at all. If you go on in the train you have chosen you will have to wait nine hours for the Libau train, and that too at a miserable station, where you will not even be able to lie down and sleep. You had much better spend the night here and leave by the early train, which has direct communication."

"But where can we spend the night here?"

"Don't let that worry you. I will make them open the guest rooms. You'll sleep there as you haven't done for a long time."

"But we are in a great hurry. Couldn't we get a special? We are quite ready to pay for it."

The colonel whistled. "In the first place, you would have to obtain the permission of the Minister of Communications by telegraph; secondly, it would cost over 2,000 rubles [£200]. Is money a matter of complete indifference to you? My advice is to spend the night here. However, I don't know. . . . What is your attraction at Libau? If you were going to St. Petersburg, that would be quite different."

"Why, the Second Squadron sails either to-day or to-morrow. I have got a telegram about it."

"You want to join the Second Squadron?"

"Of course."

"After six months at Port Arthur?"

"We don't want to sit still, twiddling our thumbs, whilst others are fighting."

The colonel was on the point of replying something, but merely cleared his throat, and ordered: "Champagne."

At two o'clock next morning we arrived at Libau. Here an agreeable surprise was awaiting us. The assistant chief of the General Staff (Rear-Admiral N——) had found time and opportunity to let our relations know the probable hour of our arrival, and consequently they were awaiting us. During the remainder of the night, of course, we never closed an eye, and by the time colours were hoisted [8 a.m.] we were already down at the harbour. An incredible hubbub was going on there. We obtained a boat with great difficulty and pulled out to the outer harbour to the battleship *Kniaz Suvoroff*, where the admiral commanding the Second Squadron had hoisted his flag.

The staff received us with some coolness; on the other hand, our reception by the Admiral was extremely cordial. My companion, the sublieutenant, was at once appointed to a destroyer, but in my case the thing was not so simple, on account of my rank. However, the Admiral promised that he would settle the matter one way or another, and directed me to

join the *Suvoroff*, for the present as a passenger [i.e., "borne for passage"].

In the squadron, which was preparing for its long voyage, stores of all kinds and coal were being shipped, and there was such "feverish activity" (as it is called in the navy), that I had no leisure for any thorough conversations, for any detailed enquiries, or for reflection. I employed my few remaining hours of liberty in buying a few necessities on shore. A few things my brother had brought with him from home (St. Petersburg) when he came to meet me, others I had been able to take with me from the *Diana*,¹ but this was not nearly sufficient.

Notwithstanding the assurance of the commander of the *Suvoroff* that the last boat would be on shore at nine o'clock the next morning, and although I was at the landing-place a quarter of an hour before the time, and waited there half an hour, no boat appeared. I did not lose my temper over it; it was the old business—"feverish activity." No doubt some one would get me off. I went in the *Alexander III.*'s boat, and got on board by 10 a.m. The departure, however, did not take place that forenoon. The water was so low that several ships touched the bottom; they were "stuck in the mud," and could not get off.

"An infernal harbour! Just look at this!" the Admiral called out in ill-humour, as he passed me.

Luckily, a light south-west wind had been blowing since early morning, which drove the water into the harbour. The *Suvoroff* was not afloat until 4 p.m.

I remember very accurately all the incidents of that day. Low, grey clouds; half fog, half icy drizzle; dark faces, hands buried in overcoat pockets; heads drawn well into the turned-up collar, into which streams of cold water were trickling steadily; general nervousness and irritability—be it in consequence of the weather, or of annoyance at all the small mishaps, or . . . from anxiety due to ill omens.

"Libau won't let us go!"—"Not Libau, but the makers of the port!"—"Weather fit for a funeral!"—"Rain at starting is a good omen!"—"Friday into the bargain!"—"Besides that, it is the feast of the intercession of the Holy Virgin!" was heard here and there.

I don't know whether those who declared the omens to be favourable were sincere. Their appearance was anything but cheerful.

I was astonished at this. But then I did not yet know all that they did; I had not yet been able to enquire as to the composition of the squadron, and had not the least conception of its state of preparation for war. I was happy in having reached the squadron before its departure from Russia. What doubts could there be? Since the squadron was being despatched, the pre-

¹ These latter things, that is, my uniform, were embarked in our steamer/as goods consigned by Messrs. Morthe at Saigon to some firm at Marseilles; they were packed in cases, suitably addressed, and had no outward connection with the "travellers."

sumption was that it was strong enough to meet the enemy! Otherwise its despatch would have no sense! The future lay in our hand! But notwithstanding the dull weather, and the dark faces around me, there was sheer joy in my heart. I distinctly remember one episode.

The *Suvoroff* was already steaming out between the mole heads of the outer harbour, when Sublieutenant Prince Z— rushed up to me. "Here are your people! Come quick— quick!" he called out, and dragged me towards the port side by my arm. I stepped out on to the port ladder platform.

Not far off a small grey steam-boat, flying the flag of the Harbour Works Department, was being tossed about on the waves, burying its bows deep into the sea. On her deck, and holding on to the rails, stood my brother and his wife. He called out something (I could not make out his words in the strong wind), and waved his cap; she was holding high over her head her small dog "Temika," as if she wanted to show that this small creature was also interested in my fate and wanted to wish me farewell.

These are mere trivialities, but how deeply they engrave themselves in one's memory! . . . The ship increased speed. The grey steam-boat returned into port. The open sea was ahead of us.

We did not get far that day. Something was wrong with the *Sissoi*, which had remained behind in port. She had apparently lost her anchor and was looking for it. We waited for her. With our departure the great activity on-board slackened somewhat. It was possible to sort one's gear, which had simply been pitched into the cabin, to have a look round generally, and occasionally to ask a question. Amongst the officers of the staff I found that there was no old friend with whom I could have a talk, such as my heart was yearning for. It was true that the senior flag-lieutenant, S—, had been in the same term with me as cadet (he remained behind though, when I left), but after that we hardly met for twenty years, and though acquaintances, we were hardly friends. . . . Moreover, all the members of the staff always looked so busy that I could not make up my mind to engage any of them in a private conversation. On the other hand, I found amongst the ship's officers two, the gunnery lieutenant and the chief engineer, with whom I had been long together in the *Donskoi* and the *Rossia*. I therefore turned to them to clear up my doubts.

"Why did you take the *Sissoi*?" I asked. "Your division can do 18 knots, but she, when all goes well, only 14."

The chief engineer gave me a questioning look, as if he wanted to make sure whether I was joking or speaking in earnest. At last he understood.

"Ah! Of course you come straight from Port Arthur! You see, speed really plays no part here. The *Sissoi* goes her 14, and of our lot, the *Borodino* gets heated excentrics even at

12 knots. As to the *Orel*,¹ she never had time to get through her trials, so that we have no idea on what speed we can rely with her for any length of time and without complete breakdown. . . . *Suvoroff*, *Alexander*, *Ossliabia*—they can probably all do their 15 to 16."

"Well, and the *Navarin* and the *Nakimoff*, with their thirty-five calibre guns and their obsolete mountings? And the *Donskoi*—that old tub? I love her, as I have gone many a mile in her. . . . but how will she fare in action?"

"But what other ships were they to take? If they could have got them ready, they would also have taken the *Monomach* and the *Korniloff* and any other old 'war-junk'! These are all ships which count in the active fleet. In the war on paper, which our strategists play at in the privacy of their offices, they all figured in accordance with the data of the Naval Pocket Books! And of course, now that real war has begun, they can't admit that they are only fit for the 'scrapheap.'"

He gave a bitter laugh.

"But the *Slava*, *Oleg*, *Isumrud*?—Where are they?"

A look full of doubt.

"Of the *Slava* there can anyhow be no question; she'll hardly be ready in a year's time. The *Oleg* and *Isumrud* have not even begun their trials; they are, in fact, not yet completed by the builders. They were sent to Reval, but in such a condition that the Admiral positively declined to tie such logs to his feet. They say that they are to catch us up somewhere on the way out."

"And the *Chilians* and *Argentines*?"

"That will all come to nothing," he said with a hopeless expression. "We are only wasting hundreds of thousands, if not millions, on all kinds of adventurers, who vainly promise to conclude the purchase."

We were both silent. I no longer felt the joy in my heart; my spirits sank, and my mind was troubled. I would not believe it; and yet the pitiless reality was so plain before my eyes. I knew my old messmate well, and had no cause to doubt his truthfulness.

"Of course," I said after a pause, "if matters stand like that, then we must take all there is. But will it fulfil our object? If those old ships had been out there when war broke out, then they might have been of use, with a good naval base at their back. They might have accepted battle with their equals in strength, but would have avoided those that were stronger. But to make them steam 12,000 miles merely to let them fight their way through to their base at the end of it, and to send them into action, when the adversary dictates the conditions, when he goes into action with possibly his best ships, which are fully up to the mark and have just left a dockyard; . . . such an enterprise does not offer many chances of success."

¹ [Pronounced *Ariol*.]

"What a pity that this detachment returned to Cronstadt in 1901!"

"That's just it!" the chief engineer went on excitedly. "It makes me feel quite ill when I think of it! What, in the devil's name, was the object in bringing them back? Perhaps on the pretext of saving the expense of keeping them in commission. Surely it is immaterial where they pay off, where they lie, housed in—at Cronstadt or Vladivostok. It was said that they required a thorough overhaul, which the Vladivostok dockyard was not equal to. Well, look here; I have calculated the cost of only coal and lubricants for the passage from the Pacific to the Baltic—without any other expenses—over half a million! [Rubles = £50,000.] If this half million had been spent on improvements in Vladivostok dockyard it could have carried out these repairs! And the old ships, rejuvenated, would have hoisted the pendant at the sound of the first guns! And they would have done something. We could have made up two squadrons, one at Port Arthur and the other at Vladivostok. And how do we stand now? But this is not the whole of the outstanding account! This passage to the Far East of ships hastily equipped, this passage in times of war, when we have to pay double, yes, quadruple prices for everything, what will that cost? Merely the passage—half a million? No; at least two! They wanted to economise indeed! It was simply habit—that damned routine: 'The ships of the Pacific Squadron which require a thorough overhaul return to Cronstadt.' Of course another consideration may play a part in this. At Vladivostok nothing comes off the new contracts for material and the wages' vote, etc., etc. The 'percentages' are lost. . . . But now—now nothing is lost. Perhaps the ships will go to the bottom, but the 'percentages' have been pocketed. O Lord!" And as usual, when he had worked himself up, he snatched up his cap and rushed down into the engine room.

"I wonder if the 'General' is not exaggerating a bit. Is it really as bad as that?" I thought when I was left alone in my cabin. . . . I went into the ward room. Here, with the exception of a few green youths, they were nearly all friends of mine from the Pacific Squadron. I could not help thinking what a promising lot they were.

The conversation did not exactly flag, but I had to admit that my efforts to hear a candid opinion as to the condition of the Second Squadron were not crowned with success, whilst questions about Port Arthur, the Japanese methods of fighting, the action of 10th August, etc., etc., were showered upon me. My shipmates remained silent as to the former subject; they would not touch upon it. Not that they tried to hide anything from me. By no means. But on that day and the succeeding

¹ "General" was the nickname which had been bestowed on the chief engineer, in all kindness, when serving in the *Rossia* many years ago.

ones, they simply declined to discuss what each thought in his heart.

I remember that the Admiralty had been flooded with applications for appointments to the second squadron, and consequently had been forced to refuse these to a good number of thoroughly capable officers. The complements had all been exceeded, and yet there were officers on board the different ships in excess of even these increased complements. They had persuaded the authorities that an additional man on board was not a superfluous weight, but, in battle, a useful substitute for such as fell out. Generally speaking, one can say that the squadron was replete with volunteers. But then, whence this mysterious mood? . . . I soon understood and became contaminated by it. . . . But I will not anticipate. I will keep strictly to the notes of my diary.

During the night, the *Sissoi* got over her troubles, and on 15th October the squadron started on its voyage, in four detachments. The weather was calm and dull. Every now and then there were light showers.

I remained a passenger.¹ There were no vacancies, and it would have been a great hardship to turn some one out for my sake. I never suggested such a thing, and even if it had been offered to me, I should have declined. I was thoroughly satisfied with my lot, for it gave me the possibility of playing an active part still, instead of being obliged to sit still at Saigon whilst others were fighting. Nor could these say: "He has had his small share in the war, but now he is taking a rest." No—a thousand times No! I should have been unhappy for the rest of my life under such a suspicion. It would have been all the same to me if I had embarked as a historian, as a newspaper correspondent, as a passenger, even as a hired steward, but I was bound once more to risk my life, I was bound to prove by my acts, that for me there was no fate worse than that which befell the *Diana*.

I beg my non-professional readers not to imagine that I use the term "passenger" in an ironical sense; this position for naval officers is regulated by the instructions. When an officer is embarked, from whatever cause, without filling one of the regular positions in the ship's complement, he is termed "passenger." He draws the pay of his rank, and in lieu of messing allowance, his "passage allowance," of about equal value. At the same time, the admiral or captain may, if it be desirable, assign him some work, or some special duty; but, generally speaking, he has no fixed occupation—a passenger, in fact.

"There is no harm in your having no regular occupation. You will assist us with your accounts of the events of the war generally, and at Port Arthur," the Admiral told me. He

¹[What in our service would be called "supernumerary borne for passage."]

added jokingly: "We shall ply you so much with questions, and you will consequently have to work so hard with your mouth, that you won't be able to think of any other work."

In this respect he was under a considerable misapprehension. I have already mentioned that my reception by the staff was cool, not to use a stronger term. In part this was only natural. They, the select of the whole body of naval officers, had drudged, worked, prepared for the departure of the squadron, drafted orders and circulars, drawn up instructions, had exerted to the utmost all their capacity, all their knowledge, all their experience, so as to foresee and provide for every contingency. Finally, they had had the co-operation of the General Staff at the Admiralty and the Technical Committee,¹ infallible authorities both—and there suddenly arrives, owing to a whim of the Admiral's, some senior officer from some cruiser, simply because he had spent six months at Port Arthur, where of course people knew nothing of all these things, and he was to give them advice and directions! him they were to consult! . . .

Of course no one asked me anything. If at any time I started a conversation with one of the specialists as to the many things we should have to alter and to make more "war-like," he would, at the most, listen to me graciously, but sometimes he would show his irritation. "Based on our experiences at Transund . . . the experiments of Björkö . . . the trials at Reval . . . the ranges at Cronstadt . . . the results of the proving ground . . . the Technical Committee . . . the General Staff . . ." A kind of Polynesian Taboo seemed to be placed on every word, every act which was "alive!"

The following lines are neither meant to condemn those which have gone down, nor to reproach those which have escaped the trial of Tsu-shima.

As regarded the large majority, these men were merely the product of the general conditions of their time. Can one reproach the more senior officers who served in Admiral Alexeieff's fleet with not being the equals of a Nakimoff's² companions in arms?

I am not speaking of individual members of Admiral Rojestvensky's staff, but only of the general impression which I received in the early days of my presence in the squadron. On the one hand, there was the Admiral, whom nothing escaped, who remembered everything, who thought of everything, who gave himself up entirely to the one idea—the successful prosecution of the war—and who aroused the general desire to co-operate with him. On the other hand, the staff gave one the impression of the typical staff in times of peace, an accurate copy in small of the general staff, which flourished—and still flourishes—at

¹ Corresponds to our department of the "Controller."

² [Admiral Nakimoff (1803-55) fought at Navarino and was killed during the defence of Sebastopol. A ship is called after him.]

the Admiralty, with all its high-and-mightiness, its exclusiveness, with its petty intrigues, and with that peculiar anxiety to preserve its field of activity against any outside interference, which is the fundamental characteristic of officerdom.

It was not at all necessary to submit an independent report. The mere expression of an opinion in the Admiral's presence, or suggestions made as to any measure in contemplation, quite sufficed to arouse the strongest displeasure of the specialist concerned. In such cases it could be anticipated with certainty, that no pains would be spared to prove the impracticability of my proposal, by all the teachings of that particular science. Even if the business was approached in the most diplomatic manner, by previously discussing the subject in private with the members of the staff concerned, one was met by almost insurmountable difficulties.

"Certainly, but I don't know how it could be carried out . . ." was the usual formula which met a suggestion. "In connection with this very thing we have already drawn up an order which has been approved and signed by the Admiral."

"But, after all, he only approved what you submitted to him. Why could you not report to him now that, in consequence of information received since, such and such a modification is necessary?"

"You see, that is very difficult. The Admiral does not at all like changing anything when once it has been promulgated."

"Well, you might at least try! Is this the time to consider any one's likes or dislikes? It is not a case of Chile waging war with Argentina, but of ourselves with Japan!" Thus I would urge, as I saw clearly that this exaggerated respect for the Admiral's signature was merely a mask to protect the speaker's own *amour-propre* against any possible censure.

Sometimes I succeeded, sometimes not. I don't like reviving the memory of all these trivialities, to rake up all this rubbish—but what is one to do? Out of these trivialities history is made.

What I have said here of the staff of the Second Squadron does not by any means represent any peculiarities of this particular staff. These are characteristics of every Admiral's staff, of the General Staff itself. Here there was only one peculiarity which up to then I had not met with elsewhere: the duality and the anonymity of reports. Any one (and of course this only refers to members of the staff or junior flag officers and captains, not by any means to ordinary mortals) who wished to make a suggestion or submit his views in any way, had, in the first instance, to give the chief of the staff ample and detailed verbal explanations on the subject. If the latter had no material comments to make, or only desired some modifications in matters of detail, a short exposition in writing had to be drafted; this was then typed and added to the chief of the staff's report, but bearing no signature. The subsequent fate of such a suggestion

varied: either it immediately had the desired effect, or it was referred for remarks to the specialist concerned, or a decision was come to, which in no way corresponded with the author's intentions, or it remained barren of all results. In the two last mentioned cases it depended upon the author's importunity, whether he managed to have a personal interview with the Admiral, although there was not much promise of success in this, since the first failure had undoubtedly been the result of the adverse opinion of the specialist concerned or of one of the senior members of the staff. It then became necessary to fight against preconceived notions, without knowing what these were based upon, and what arguments the other party had adduced against the proposal.

I do not think that this system was of use to the service. I do not know who invented it. Anyhow it enclosed the Admiral like a wall, which it was not easy to penetrate! The only opportunities for breaking this wall could be found in the three meals at the Admiral's table,¹ during which it was possible to lead the conversation on to the desired subject. These conversations were invariably led by the Admiral himself, with much animation; he never curtailed them, but, on the contrary, his replies were such as to force the disputant to be most explicit. On the other hand, all the members of the staff were not embarked in the *Suvoroff*, so that those who were on board other ships were deprived of the possibility of resorting to the above-mentioned method. On the pretext that the flagship was overcrowded, an attempt had been made to shift me elsewhere, and I only remained on board by the Admiral's personal order.

When I took stock of the internal economy and general arrangements in the squadron, I was astounded at the almost total disregard of the experiences of war, that bitter experience, which we had gained during the course of eight long months of active service, at the cost of failures and reverses. I would not believe that no account was taken of them, and could not realise that they had remained unknown in this squadron, itself going out to the war.

This could not be, since Commander K—, who had been sent home from Vladivostok by Admiral Skrydloff, expressly for the purpose of assisting at the fitting out of the Second Squadron, had now been over a month on its staff.

It was true that this officer had held a shore appointment at Vladivostok, had taken no part in any action, and had never heard the whistle of a hostile projectile, but he could at least have collected the necessary information from eye-witnesses, and finally, in his position (head of the war section in the staff of the Commander-in-Chief of the Pacific Fleet) he had before him all reports of proceedings, both from the Vladivostok Cruiser Division and from Admiral Vityeft. Was it conceivable, that

¹The whole of the staff messed with the Admiral.

all these truly valuable reports had neither reached St. Petersburg nor Vladivostok, but had remained in the Viceroy's office, for "further consideration"? This appears simply monstrous.

Be this as it may, the experiences of the war were not utilised, as they should have been. Now, what was the cause of this? Was it due to the meagreness of the reports from the Far East, or to the ignoring of these reports by the home authorities, impressed by their own infallibility? It is hard to say; it might be the one or the other. It is, however, as well to state that Admiral Skrydloff's envoy was always guided by the views of these patent wiseacres. He himself did not take part in any fighting, but he openly expressed the opinion, that exaggerated hopes were placed on war experiences, that any such experiences acquired at first hand had to be met with scepticism, that they would not produce any revolution in naval warfare, etc., etc. To me these opinions appeared to be criminal heresy, and they troubled me much. If our wiseacres, who are now prophesying after the event, had foreseen everything, why did they keep silence? Why did they not foretell our failures? And, finally, if the experiences of the war only verified their prophecies, only confirmed their theories, then they should have made more ample use of them, instead of discarding them! Would that not have been the right course? But in reality things fell out differently. In the course of a conversation I had with the torpedo lieutenant of the *Suvoroff* (an old acquaintance from the China campaign), on the day of my joining the squadron, I discovered that on board all ships the mining rooms had not only not been emptied, but that they contained, in addition to the regulation number of loaded mines, a number of countermines, which were intended for the destruction of hostile mine-fields; this meant that on board the *Suvoroff*, for example, we had over three tons of pyroxylin.

At first I tried to discuss this point with those on the staff who were responsible in this matter, but of course without any success. On my representing that these loaded mines should be transferred to the ammunition ships, that battleships should not be permitted to harbour such volcanoes in their storerooms, I was met by a condescending smile; I daresay they pitied me on account of such gross ignorance. However, the question appeared to me to be so serious and urgent, that, without troubling myself as to any unpleasant consequences, I introduced the subject of the blowing up of the *Petropavlovsk* after dinner the same day, gave a detailed description of the event, and also mentioned the blowing up of the *Hatsuse*, which disappeared below the surface of the water in fifty seconds.

"So you are of opinion that the cause of the sinking in both cases was the explosion of the mining charges carried on board, which in turn had been caused by the blowing up of a mine outside?" the Admiral asked.

"Beyond any doubt, your Excellency! This is not only my own conviction, but it is shared by all."

"Quite impossible!" broke in the staff torpedo officer, with much excitement. "So I am to go back and be taught now, such elementary truths as the conditions necessary to cause an explosion: the actual contact of the materials concerned, or their separation by a metal partition, with which the material is in direct contact on both sides. An air-cushion between them removes all possibility of explosion. The Technical Committee has come to this conclusion as a result of the scientific experiments it carried out both in the Baltic and in the Black Sea. However, this is nothing new, it was all known long ago! But after the disaster to the *Petropavlovsk* fresh experiments were carried out to confirm these old truths, so as to refute completely any silly statements to the contrary which might crop up here and there!"

"Whatever the experiments may have been, of which you speak, I, with my own eyes, saw the blowing up of *Petropavlovsk*, and I remember as distinctly as if it had only just happened, the enormous cloud of smoke, of that characteristic dark reddish-brown colour, which enveloped the entire fore-part of the ship, and in this cloud the mast coming down, . . . One does not forget a sight like that! And so violent an explosion, such quantities of smoke, dark reddish-brown, moreover, could only come from the loaded mines. The clouds of white steam only appeared later, and we all knew clearly that this meant the bursting of the boilers and the end of the ship! . . ."

"I can only repeat to you that, provided all the precautions prescribed by the Technical Committee are carefully attended to, *such a thing is impossible*. If the disaster did really take place in the manner you describe it, it can only mean that on board the *Petropavlovsk* these precautions were neglected. The loaded mines must have been touching the ship's side; there was no isolating air-cushion between!"

"Almost the same opinion was held by a portion of the committee of torpedo officers, which was assembled at Port Arthur directly after the loss of the *Petropavlovsk*. But we must surely assume that the Japanese, who had observed this catastrophe, at once carried out on board their ships the complete isolation of the mining charges, according to every scientific precept. They always pick up everything as quick as lightning. None the less, one month later the *Hatsuse* was destroyed in the same way as the *Petropavlovsk*. I was not an eye-witness of this event, but I heard the description which was given of it by people who had seen it from Golden Hill. I did not hear this as recollections of passed happenings, but as the description of an event, which had just taken place before their eyes. They related how a gigantic column of smoke and fire rose up in the air near the mainmast—like the eruption of a volcano; fifty seconds later there was nothing to be seen of the ship. The interval of time mentioned is quite accurate. It was taken with the second hand of a watch! After this all doubts were removed. Only the cruisers, which were stationed in the

entrance, kept (either on board, or on shore near their berth) each three mines, in readiness to supply them to destroyers, which went out at night to lay out mines. On 10th August, before sailing, the Admiral expressly asked by signal: 'Has any ship got any loaded mines on board? If so, they are to be landed at once, if there is no time, simply sunk.'

"And I can only repeat that the Technical Committee, based on its scientific and exhaustive researches . . ."

"What can be better than the experience which we gained as eye-witnesses? Two battleships!"

"The results of scientific experiments should not be lightly discarded. In the first instance, the Technical Committee . . ."

"Above all let me beg of you not to mix up science and the Technical Committee; secondly, I should like to point out that not one of the sciences has spoken its last word. Every day brings new revelations. Astronomy was a science even before the days of Copernicus, and mechanics before Newton! When facts for once run counter to rules which by all appearance seem to be well founded, then we must not shut our eyes to the facts, so as to uphold the latter."

The Admiral now interfered in the dispute, trying to reconcile the widely divergent opinions on the subject and to soften the asperities.

I fully realised the difficulties of his position. On one side was the statement of an eye-witness, as to whose truthfulness and powers of observation he could have no doubt. On the other side there was the decision of the Committee, which was looked upon officially as final and irrevocable in all technical matters. I did not succeed in attaining complete victory: the mines were not transferred to the ammunition ships; but on 20th October, a circular was issued containing special regulations for the proper isolation of the mines. These were not only to be carried out with reference to the ship's side itself, but also as regarded any metal fittings connected to it, so as to avoid any concussion being transmitted by these to more distant places. Between the mines wood "dunnage," felt padding, etc., was to be packed. How far these measures would have proved effective, there is no actual war experience to tell, as none of the ships of the Second Squadron were struck by a mine anywhere near the mining room.

All these technicalities do not, of course, possess any special interest for my readers, and I only dwell on this episode at some length, in order to bring out clearly the relations which subsisted between the central authority and those who did the fighting. If a live man, speaking a living language, who was in a position to reply at once to any objection raised, to stand up for his views, to vouch for what he had seen with his own eyes, found it so difficult to bring about the discarding of the infallible rule and regulations laid down by the magicians and necromancers who were sitting in the shadow of the Admiralty, what value would possibly be attached to reports from the Seat

of War, which were necessarily brief and perhaps not sufficiently reasoned out? No doubt they were generally endorsed "Record Office."

Although of course this, my "first appearance in public," was hardly calculated to reduce the coolness with which I had been met by the staff, I ventured all the same to enquire from the chief of the staff what steps had been taken to ensure the safe passage of the squadron through the Belt. He replied that all necessary measures had been taken; irrespective of the supervision by Danish men-of-war, which had to safeguard the neutrality of their territorial waters, a special service had been organised on our side, both on the coast-lines and afloat, the latter by means of special steamers, which were to cruise in the narrow waters and to keep a good look-out for any suspicious vessels which might be laying out mines on the squadron's line of advance.

Relying on my recent experiences, I began to broach the subject in all humility: Since such a danger existed, would it be considered superfluous to let a mine-sweeping detachment steam ahead of the squadron, as was done at Port Arthur? No doubt the steps taken were sufficient to meet the case, but an accidental oversight was always possible, whilst the water in rear of a sweeping party was safe beyond any shadow of a doubt.

The chief of the staff did not gainsay me, but suggested my speaking to the staff torpedo officer, since the decision and any report thereon was his special business.

I applied accordingly, and expressed my views in a thoroughly friendly, conciliatory manner. I was received fairly graciously; at any rate there was no open hostility. "This is rather a large undertaking," the officer said. "Of course mine-sweeping is an additional guarantee against any accident. But judge for yourself the time we should take to get through the Belt—a week or more."

"Why?"

"Because, on an average, we should not be able to sweep more than 8 or 10 miles of Channel per day, and if you allow for bad weather . . ."

"It is evident that we do not understand one another. I am speaking of a mine-sweeping detachment steaming ahead of the squadron. The second destroyer flotilla of Port Arthur, which used to precede the squadron on its departures as a sweeping party, consisted of boats, built in our home yards, of the *Sokol* type, of 220 tons. A pair of these, towing a heavy sweep, 100 fathoms long, used to steam 5 to 6 knots without any difficulty. Our destroyers are of 350 tons, so that they would be able to do this all the easier. If you were to place five pairs in two indented lines abreast, you would have a perfectly safe channel 600 yards wide immediately ahead of the squadron and on its line of advance. By starting at daybreak, the Belt would be passed by that evening."

"Indeed, we don't seem to understand one another," was the irritated reply. "To say the least of it, this proposal is so—unexpected, that there is really nothing more to be said about it. The *destroyers* are to do the sweeping!—the *destroyers* of which we have so few, which we have to guard more carefully than the apples of our eyes!"

"But we must look after the safety of our battleships with still greater care."

"You are new to all this; you have been here just forty-eight hours, and are evidently ignorant of all that has been done. Here are the directions as to clearing narrow passages of mines, which were approved by the Admiral and issued as far back as 21st July. Read them through, that will be quicker than my explaining it all to you."

I buried myself in this document.

Has it ever happened to you, respected reader, to return home from a distance, convinced that dear relatives and friends would have made preparations and put everything in order in accordance with directions, which you had sent in advance, and then suddenly to realise that your letters either miscarried or had not been attended to? My feelings were something of that kind when I read through the "Directions for clearing a Mine-field," which had been so kindly placed at my disposal. Here were careful instructions, worked out in minute detail, which were bound to prove quite invaluable for the purposes of an inspection of mining drill in the peaceful waters of the roads of Transund.

Everything was provided for, down to the smallest detail in the outfit of the boats, even "Dry cotton waste, two pounds." But the 100-fathom sweeps, specially and cunningly constructed, were to be towed by *steamboats*! Pulling boats were to assist these when sweeping at especially suspicious localities. *Pulling launches were to keep handy with divers, which were to go down to the mines*, if these could not be made innocuous by any other means! *That!* after the bitter experiences of six months outside Port Arthur! *That!* when it had been recognised so far back as in April, that for the proper sweeping of a roadstead or passage communicating with the open sea, not only pulling boats, not only steam cutters, but even the picket boats were too weak. *That!* when for the last six months special mine-sweeping flotillas had been organised both at Port Arthur and at Vladivostok! After the Port Arthur squadron had twice gone to sea, preceded by these flotillas! And then the pattern of sweep which we had finally adopted, after trials costing so many lives, the shedding of so much blood! Of this they (here) had not heard anything, or—they did not wish to hear anything.

What was agitating my mind must have been expressed pretty plainly in my face, for by the time I had returned him the paper after skimming through it, the staff torpedoist had pretty well lost his self-confidence. With evident hesitation he

said something about "You see, we did what we could. . . . Trials. . . . Technical Committee. . . . the special Commission . . . of course one can't foresee everything . . . the Admiral approved of it . . ."

I felt like someone who had just been knocked down. However, I restrained myself. I did not become excited and I did not protest. I only began very quietly to relate everything in order, and to explain it with sketches. I urged him, I entreated him, for the sake of the thing itself, for the sake of the fleet, for Russia's sake.

He gave in, but not completely. It was quite clear that the chief difficulty lay in the fact that a "submission" would have to be prepared, setting forth the necessity for cancelling instructions which had been approved of three months ago, whilst new instructions, having nothing in common with the old ones, would have to be prepared for the Admiral's approval.

(To be continued.)

THE EMPLOYMENT OF DIVISIONAL ARTILLERY.

By Captain W. F. WEBER, R.F.A.

"Guns must be controlled, but the principle of fire-control is subordinate to that of co-operation."

ONE may sometimes observe at peace manœuvres a practice of distributing *ab initio* amongst the infantry units the whole quick-firing artillery of the division, a field artillery brigade being more or less permanently affiliated to each infantry brigade. This may be due (i.) to the facility of telling off infantry and artillery brigades in divisional orders in pairs and so delegating to the infantry brigadiers the responsibility for employment, security, and administration of the greater part of the divisional artillery, (ii.) to the fact that our divisions are seldom practised together as an army, each division on a restricted front offering few roads to advance by and few artillery positions, (iii.) to our being but rarely faced on manœuvres with unexpected developments.

The invariable keeping of the whole of the guns under the direct control of the divisional artillery commander is not suggested. Marching on a wide front, wide turning movements, covering concentrations of an army, etc., are operations which may require the decentralisation of a division into columns of all arms. It is the practice of basing all orders and arrangements on the co-operation of one particular artillery brigade with one particular infantry brigade, that appears to some of us to be unreasonable.

The tendency of the moment is in favour of telling off a certain number of guns to each infantry brigadier (or other sub-commander). The use of their field guns by the Russians at Port Arthur, of the French batteries on their left wing at Worth, of the Boer guns at Spion Kop, showed what could be done by well-placed field artillery in the close defence; and as only the commander of a defensive section can know exactly when and how to use guns told off for the close defence of his section, it follows that those guns must be at his immediate disposal.

In the attack it is the same; the commander of an attacking brigade should be able to dispose of a certain number of guns at critical moments, so as to get such support as was offered by artillery on the Rotheberg at Spichenen, at Diamond Hill, and the Modder.

It is the local circumstances which decide how much artillery can be usefully so detached. It has been suggested that, under normal conditions, a battery of field artillery is as much as can be conveniently used in the space allotted to an infantry brigade in attack or defence.

How to employ the bulk of the field artillery, then, becomes a problem. It remains under the G.O.C. the division, controlled by him through his C.R.A. But it is just this control which is so difficult, and this difficulty which constitutes the excuse for parcelling out the whole Q.F. artillery before operations commence.

Control of massed guns was easy enough in 1870, but guns cannot be massed now as they were then. Were a long line of batteries to be brought up to the top of a hill during the early stages of a fight, they might very likely lose their mobility even if able to continue the fight from where they were. When a large body of artillery is brought into action behind cover, the necessity for observing stations produces a certain amount of dispersion, even if this is not brought about by the shape of the ground itself. On the other hand, our means of communication (and therefore of control) are better than in 1870, so that it is possible still, though really difficult, for a C.R.A. to manage his whole command. "Communication companies" have been tried by some divisions. Such a company might have a certain number of telephone carts, etc., added to it, expressly for the purpose of artillery control; which carts could be distributed in proportion as artillery brigades were detached to co-operate with infantry brigades. At a pinch it is possible to arrange communication between the various gun positions to the C.R.A. by means of orderlies, signallers, and telephones, temporarily withdrawn from the artillery brigades; but this course is to be deprecated as depriving the latter of part of their self-contained efficiency, and can only be a make-shift.

To what extent the C.R.A. should in practice direct the fire of his brigades is rather a moot point. Selecting the initial positions with regard to the G.O.C.'s plan of the battle—determining whether the guns are to be under cover or entrenched in the open, and how many should be thus exposed—deciding on the moment when the value of concealment is outweighed by the need of closer support of the infantry—husbanding of ammunition—concentration of fire on some particular part of the enemy's line; these would appear to be his chief means of exerting influence.

He would probably allot to each unit a certain frontage of target, but there are times when it will be necessary to concentrate fire on one special area of ground. And here is where the need of single control becomes especially evident, for the range and fuze and "line" to that special area must be found from each artillery position; and, as it is at present impossible for a unit to identify its own shells, it must be arranged that fire

is ceased (as regards that part of the target) from all other positions, while the guns from any one position are getting this necessary information.

We are, perhaps, slow in the art of turning the fire of a mass of guns from one objective to another. But the telephone has made such switches easier and quicker in spite of all that its many enemies may say. With improvements in equipment, and, above all, with practice, the difficulty of directing the fire of a large number of guns may be, to a large extent, overcome.

When it is once decided to give the C.R.A. control of several artillery units, he may have to part company from the G.O.C., so as to be in the most convenient position for seeing his command as well as the enemy's position; he will probably leave one of his staff officers with the G.O.C. on such an occasion, or he may prefer to remain with the G.O.C., leaving the actual command of the guns from a fixed position to the next-in-command.

If we discuss some of the usual operations in which a division becomes engaged, we see how the two systems of employment compare.

A.—ON THE LINE OF MARCH.

The writer has seen a column of infantry marching with its brigade of field artillery along a Berkshire country road, where the guns were unable to reverse and there was not the slightest chance of bringing more than one or two single pieces into action at corners of woods, ends of villages, etc. Two miles to a flank lay another road, which in course of time ran over a series of ridges offering positions for a large number of guns, whence fire could be opened on the hills in front, should the enemy (as was more than probable) be found there.

As long as a few guns are immediately available to each column, the bulk of the divisional artillery might move along the road or roads most suited to the tactical and topographical circumstances of the moment, under the column commander (on whose road it marches) for administrative purposes, march discipline, and security, but still at the disposal of the G.O.C. for tactical employment.

During a march of this kind, communication between the artillery brigades and the C.R.A. would be *via* the column commander and the G.O.C.

We are sometimes told that distribution of the artillery among the infantry units, brigade to brigade, is the only possible method of employment in close country. At first sight it would appear so; and it is certainly the easiest to order. Whether it is the best method merits closer examination. To embarrass a column with useless artillery can scarcely be satisfactory to the column commander. Consideration will generally show that artillery will be more useful at one part of the line

than another. If the country is so close that artillery is no use at all, the greater portion of it had much better be kept back altogether and be treated for the moment as "impedimenta"—our old friend the "train" of the army.

A case in point occurred at the battle of Towan on 31st July, 1904, where four columns of Japanese Guards advanced against the southern ridge of the Russian position by four different routes. Three of these columns were allotted field artillery, which seems to have been quite useless in two cases. There were three batteries with one column, two with another, one with the third. The question is, was it worth hampering the advance of the columns with so much artillery, which must have actually delayed their movements, by giving them the extra task of escorting so valuable a "train"?

For the whole divisional artillery to march along one road has been treated as an unthinkable state of affairs. This is directly due to our practising our divisions singly and in a country of plentiful communications. If the six divisions were working together, not only the divisional artillery, but a whole division, or even two divisions, might be marching along one road. And that is a condition of affairs in which we get no practice except at staff tours, and of which we take practically no count whatever; it affects many other questions as much as the employment of divisional artillery (stupendous as the length of the latter is), for instance the difficulty of allotting quarters, providing food, issuing orders, etc.

In a march along one road, following the usual procedure, the guns allotted to the infantry would march with their respective infantry brigades suitably to the orders of the brigadiers, while the main body of divisional artillery would take the place in the column selected for it by the G.O.C., and be directly under the C.R.A.

B.—IN THE ATTACK.

It may so happen that in every front allotted to an infantry brigade, a good supporting artillery position will be found. Those who have had the task of finding such positions will bear witness that this is not always the case. Even if it were, yet there are still two objections to the brigade-cum-brigade system:—(i.) That the fire of any one artillery brigade might frequently be wanted for some other purpose (of which the brigadier is ignorant) more urgently than for the support of the affiliated infantry brigade; (ii.) That an infantry brigadier has already all he can cope with to control his brigade when once launched to the attack. The further his men advance, the further he gets away either from them or from his supporting artillery; if it comes to a choice between his losing touch with one or the other, it stands to reason that it is the artillery who are left.

As a matter of fact, a well-placed C.R.A. can often see the danger threatening an attacking column better than can

the column commander himself. A good instance of this occurred at Vaal Krantz, where the attack of one brigade became deflected owing to a heavy fire from an unexpected direction. By the C.R.A.'s prompt action, this fire was silenced and the attack resumed its intended course.

That a certain number of guns should be at the disposal of the infantry brigadier, has been already suggested. Not everyone will agree to this. It will be said that these detached guns would perform their special duties as well, if still under the C.R.A.—and with more certainty. The idea is rather that guns, which are at the disposal of the infantry brigadier, will give that particular nature of support, which he may want from time to time, and so offer more perfect co-operation. It would be their task to fire on the targets discovered by the brigade's advance, and perhaps to draw the enemy's artillery fire. It might be their task, at a later stage of the battle, to advance to the very close support of their infantry. But the main portion of the divisional artillery would seem to be better employed, under the control of the C.R.A., to suit the special purpose of the G.O.C.

In 1904, the French were practising employment of a large mass of artillery. The scheme was to support the decisive attack of the divisional reserve (1 infantry brigade), after a long preliminary encounter. The C.R.A. told off a proportion of his batteries to be at the disposal of the brigadier; to the rest he allotted the various tasks of firing on the point of assault, keeping down the enemy's artillery fire, and guarding the flanks of the advancing brigade against counter-attack. A case somewhat similar to this might occur any day, and could not be carried out unless the bulk of the guns were at the immediate disposal of the G.O.C., who alone can determine the moment for making such an attack.

C.—IN THE DEFENCE.

During some recent manœuvres, two infantry brigades were occupying adjacent sections of a defensive position, a field artillery brigade being allotted to each. That one, which co-operated with the right section, was posted behind the crest of a hill whence the whole country in the front of the defensive line could have been ruthlessly swept. On the left, batteries were digging themselves into a position chosen purely from the point of view of the rifle, with a field of fire up to 400 yards, and dead ground from thence up to just 3,000 yards. The left infantry brigade commander might have, perhaps, found useful employment (in the close defence) for four guns. The rest of his field artillery brigade would have been far better placed in the right section, under the C.R.A.'s control.

Presumably the guns for the close defence will be on a forward slope, and therefore entrenched and unable to move. Too many guns cannot be spared for such conditions. The bulk must retain their mobility, and are surely better used if still

under the control of a man who is not engaged in the anxious work of close defence.

The chief argument for allotting brigade to brigade in the defence is that the positions of the infantry and artillery lines may clash, unless the commander of each section of the defence chooses both. The local circumstances alone can decide which arm should be allowed first choice on any particular occasion, and the G.O.C. would seem to be the best man to decide, not the defensive section commander. The Boers naturally had no thought but for the rifle; the terrain at Spichenen offered few facilities for the employment of the French artillery. But the Germans probably wanted the best places for theirs at Sedan, and the Austrians would very likely have chosen a position largely for their guns after their experiences in 1866. Every battle affords its lesson, and the employment of the bulk of the Russian artillery at Shushampo (where there was ample time for preparation) with its tram-lines, telephone connection, etc., is a good example of the possibilities of "higher artillery control" in the defence.

Guns placed in any particular section would be under the commander of that section for administration and security; and their employment to cover a certain frontage, as suggested earlier in this paper, would probably lead in practice to their co-operation with the troops of that section. But they will still be at the immediate disposal of the C.R.A., if required.

The operations in Natal from 14th February, 1900, until the relief of Ladysmith, present a very interesting case of the employment of a large number of guns.

From the 14th till the 17th, nearly every gun of the Natal Field Force was under the control of a senior artillery officer acting as C.R.A. On the 19th, at his suggestion, the batteries were handed over to the control of the generals commanding the infantry divisions, because the advance was to be over fairly open ground and objectives were widely separated. After the 19th the guns were put back under a C.R.A. again, with the exception of the naval guns, which the commander-in-chief himself controlled.

On the 25th the C.R.A. and his battery commanders carefully reconnoitred the positions which they eventually occupied during the battle of Pieters Hill. The C.R.A. himself selected the position for every one of his batteries, except a few guns on Monte Christo.

At dawn on the 26th the batteries were all in position. During the day the hills in front were named; ranges to conspicuous spots found by actual trial, and registered; and the plan of the Commander-in-Chief explained in detail to all battery commanders. The targets were allotted on the principle of so much frontage to each unit. Four batteries were under the eye of the C.R.A.; with nearly all the others he communicated by mounted orderly. Monte Christo was too far away

to control (with the means of communication then existent), and the officers there were left to act independently.

On the day of the battle things went much as expected. A certain proportion of the batteries had been told off to crown the captured heights when possible, and the order was issued for them to do so. The C.R.A. was to go forward with these himself. The move was, however, not permitted by the Commander-in-Chief, as being too risky.

The case has been gone into in some detail as offering an instance of (a) change of control of artillery to suit the circumstances of the moment; (b) effective control in the attack of a mass of artillery by a C.R.A. to suit the special purpose of the G.O.C.

The following points should be noticed in connection with this instance:—

- a. The composition of the force under the C.R.A. was not unlike that of an English division—1 horse, 8 field, 1 mountain, and 1 heavy battery.
- b. The terrain at Pieters Hill was singularly well suited to control by a C.R.A. The guns were all on the right bank of the Tugela. There were practically no positions on the left bank until within a very short distance of the enemy's trenches. (See diagram below.)
- c. The comparative harmlessness of the Boer artillery, which even allowed of the occupation of positions on the forward slope during daylight.
- d. "Under cover positions" were not then in use, batteries not being in possession at that date of the necessary instruments. This made control distinctly easier, so that conditions were rather those of 1870 than of to-day, even though smokeless powder was used by all but a very few guns on either side.
- e. The brigade system had not yet been fully developed. The C.R.A. had too many units under his personal command.
- f. Telephones were not then in use as means of communication in the field. The artillery position here would have been especially suitable to their employment.

There were no heliographs for communication between the C.R.A. and his distant batteries. They would have been most useful.

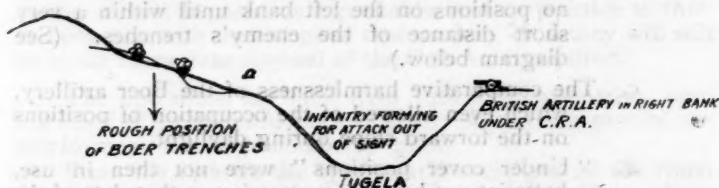
Factors (e) and (f) made the control far more difficult than it would be nowadays.

What we all want is that the guns should be so employed as to best help to win the battle. The point is, will the affilia-

tion of brigade to brigade generally effect this? It is all very well to say that artillery allotted to infantry brigade commanders can always be withdrawn if required. On a wide front, it will be a long time before these detached guns can be brought under central control; and one scarcely knows the commander who, having been given a certain number of guns, and made arrangements accordingly, and perhaps feeling the pressure of the enemy rather severely at the moment, will, without protest, allow two-thirds of those guns to be withdrawn from his command.

What appears to the writer of paramount importance is that the bulk of the guns should be a reserve in the hands of the G.O.C. the division, until he discovers where they can be of the greatest use; another point is the necessity for the closest touch between the G.O.C. and his C.R.A. Until the moment of development arrives the G.O.C. and his divisional artillery commander must be together.

As the fight moves forwards or backwards, central control will become less; and it may well end in some such condition as of a field artillery brigade co-operating with each infantry



brigade. The gradual decentralisation of command as the pace improves is probably the highest form of co-operation to which we can hope to attain. Initiative and courage of opinion are required for this eventuality as for every other one in which control slips from the higher authorities into the hands of subordinate officers. It is an essential point of the whole system that freedom of action on the part of artillery brigade commanders be in every way encouraged.

The system of affiliation mentioned at the beginning of this paper has even been extended to the training throughout the year of one particular field artillery with one particular infantry brigade, the argument being that intimate knowledge is produced between the officers of the two units, and that therefore closer co-operation between infantry and artillery ensues. This is obvious, but to pursue the argument further and to extend to constant practice in the field a custom convenient to preliminary training, implies a definite organisation of "mixed brigades," which is not the present organisation of the Home Army.

The principles which appear most important are :—

(i.) That the C.R.A. be in the very closest touch with the G.O.C., and that anything which leads to closer communication is of value;

(ii.) That the control of the whole artillery be maintained by the G.O.C. (through his C.R.A.) until matters develop; and that, barring emergencies, "co-operation with" an infantry brigade should not mean control by the infantry brigadier, unless explicitly ordered; but that complete control should be given to any commander required to carry out some definite task over as many guns as it is thought fit to allot to him; and that it is always advisable to allot a few guns to such a commander, even if only a section;

(iii.) That the C.R.A. should keep as far as possible in touch with all his units even though definitely allotted to another force.

This is not an artillery question. It is a question in which the infantryman, necessarily the leading actor, must have as much to say as the artilleryman. The writer has discussed this question with many infantry officers, and several appeared to hold much the same views as are expressed above. Perhaps some of them might give us an infantry view on this somewhat debatable point. That considerable diversity of opinion exists, even in the artillery, seems apparent from the various methods of employment of the guns seen at the recent manœuvres.

There are a number of questions directly attendant on this main one, which dictates a principle; such a question is, as to the issue of orders by the divisional artillery commander, in regard to which no definite system as yet obtains. Another question is whether batteries allotted to the infantry should be taken from each artillery brigade, or whether one artillery brigade should be split up for this purpose. It is not convenient to discuss these and other questions here, for they are more purely artillery matters.

THE NEW MUSKETRY REGULATIONS FOR THE GERMAN INFANTRY.

Translated from the *Militär Wochenblatt Beiheft*, of
30th November, 1909.

Contributed by the General Staff.

NEW Musketry Regulations for the German Infantry were approved on the 21st October, 1909, and have now been issued to the troops. They replace the Provisional Musketry Regulations of November, 1905.

It is well known that the issue of the new Regulations was preceded by a lively controversy in the military Press. Controversy such as this is always welcome, for it is only from public discussion and the exchange of personal experiences that anything useful can be learnt.

The chief point under discussion was whether greater value should be set on range or on field practices. In the 1905 provisional edition the conditions for range practices had been made considerably easier. It now became a question whether more time and attention would have to be given to instruction on the range if those conditions were again made more difficult.

The next question to decide was whether the programme of field practices (with special reference to preparatory practices) should be arranged in the same way as in 1905, or whether it should be rearranged in some other way.

In addition to these two there were several other questions, such as whether the existing targets should be altered or reduced in numbers, how ammunition could best be expended, etc.

The present Musketry Regulations have answered clearly and concisely all these questions, which are so important for the training of dismounted troops.

In the first place they are based on the principle that none of the fundamental ideas hitherto proved sound should be altered, thus ensuring uniformity of training. But at the same time, wherever there was need for improvement, alterations and innovations have been made.

Following out these principles, the introductory decree is now worded in the same manner as in 1905, and reads as follows:—

"I expect that musketry, which is so important for the training of my infantry in war, will be carried out in all its different parts with the greatest care and attention, as has hitherto been the case, and I especially expect that the results in field practice will be marked by steady improvement."

Although it will be seen from the above that the main principles formerly held have been maintained, yet in very many details the new Regulations have undergone considerable alterations.

Even looking at the book superficially, it appears to us quite altered, for the subject matter has been arranged differently, and, if we may say so, in a more suitable and convenient, or at any rate in a much simpler, form than before.

The book is now roughly divided into the following parts:—

1. The theory of musketry.
2. Musketry training (which embraces the largest part of the book).
3. The remaining chapters (range-finding and general information, such as shooting badges and prizes, targets, ammunition, etc.).

In the chapter on the "Theory of Musketry," only minor alterations have been made. The muzzle velocity of the bullet is now given as 900 m. (2,952 feet) per second, whereas in the former edition it was given as 860 m. (2,820 feet) per second. This shows that there has been a further increase in the muzzle velocity.

The figures given for the height of the trajectory above the line of sight for dangerous spaces, for extension in depth of the zone of fire (depth dispersion), have been partly altered.

The new figures are the outcome of the latest range experiments, but they are also due—for instance, in the case of the increased depth zone—to the better results obtained from the improvement in the ammunition.

Paragraph 28, as it is now worded, is of fundamental importance for the whole system of musketry training, and especially for the important objects it aims at. It reads as follows:—

"Musketry training should render the individual soldier so proficient as to be complete master of his weapon under all conditions of the fight. It should also render units capable of carrying out to the fullest extent all that is required of them by their leaders in the fire fight.

"It is not sufficient to give individual soldiers a thorough training; all subordinate leaders must also be methodically trained in the direction and control of fire, and all ranks in a company must be taught to work together for a common object."

Musketry cannot be separated from battle training; service conditions must be considered first. This is the reason why the fundamental principles of training in the new Musketry Regulations are identical with those in the Infantry Regulations. The excellently worded sentence of the latter book (paragraph 477) has been reproduced word for word in the Musketry Regulations (paragraph 28): "Training is being carried out on right lines when the troops are able to accomplish anything that war may demand of them, and when they are not compelled to unlearn on the battlefield anything they have been taught in peace."

These words are of grave importance for musketry training in all its branches.

It is worth noticing that still greater stress is now laid on the company commander's responsibility in musketry training.

We now read: "It is the duty of superior officers, whilst still holding company commanders responsible in every way, to interfere when they see instruction given on faulty lines."

Much greater latitude is therefore allowed than by the former Regulations, which laid down certain definite duties for officers commanding regiments and battalions, such as the examination of the instructing staff, inspections in firing positions, inspections in the preparatory instruction for field practices, etc. These are no longer laid down as hard and fast rules.

Formerly certain exercises on the range had to be carried out under the personal direction and supervision of the superior officers. These injunctions are now relaxed, and paragraph 29 has been altered to read as follows:—

"The rounds of ammunition sanctioned by paragraph 247d are to enable superior officers to have special practices carried out from which they can form an opinion by personal observation of the standard of training attained by the troops.

"In judging these practices the number of hits to rounds fired is not the only thing to be taken into consideration, for that number might be considerably affected by differences in rifle ranges, weapons, etc. It is just as important to note how men behave in the field (take cover, adjust their sights, etc.). It follows then that these special practices can only fulfil their purposes when the superior officer is able to attend the firing in person."

The real importance of range practices is now expressed in the following manner (paragraph 31): "In range practices it is possible to watch the individual as he fires each shot and to mark each shot. They are therefore the best means of training a man to be careful and conscientious when firing a round. Herein lie the true value and the complete and undeniable justification of range practices, which in this manner become a preliminary for field practices, and cannot be omitted."

The "Instructional Exercises," which come under the general heading "Range Practices," are much easier to follow, since they have been divided into the paragraphs: Trigger Pressing, Aiming and Trigger Pressing, Firing Positions.

The following remark from paragraph 32 is very much to the point:—

"Instructors are to refrain from any form of comments which may discourage a man. It is only in exceptional cases that bad shooting is the consequence of faults arising from laziness or gross carelessness; as a rule men show particular liking and keenness for this branch of their training. It is the duty of the instructor to maintain and foster this liking."

Higher value is now rightly attached to "Visual Training" (37), for it is only by means of methodical instruction in this most important branch, that the object of the training, namely to recognise and keep in sight the small targets in the field, can be attained.

For instruction in aiming and firing, the new method of pressing the trigger (bending the finger) is of importance. Whilst formerly the point of release was attained by a "continuous, gradual, and even bending of the finger," it is now attained "in one motion."

The former somewhat hard and fast method by which different classes of shots had to define their point of aim in a different manner, has been simplified by making all men state what direction they thought their rifle was pointing in at the moment of discharge.

The firing positions are now simpler than they were before. In the "prone position, with the rifle rested," the same procedure is prescribed as in the "prone position in the open," with this difference, that the firer has the option of adopting the position formerly laid down, namely, of carrying the left hand to the butt.

The firing position kneeling has been made more comfortable.

It is important to note the fact that the conditions of range practices remain the same as in the 1905 Regulations. It must be allowed that a higher standard was formerly expected in range practices, but only at great sacrifice of time and ammunition, and with great strain on the nerves. The demands formerly made on patience and nerves were very great, especially when indifferent shots had to be put through their range practices, some of which were very difficult.

Now the standard required is adapted to men of medium capacity, so that without hurry or too great a strain a standard can be attained which admits of the average man being fully prepared to take part in field practices. In the interests of musketry training generally this is much to be welcomed, as a higher standard in shooting would hardly have been to the interests of a uniform and steady training.

The cyclists armed with carbines now fire the same practices as other men (69).

The whole of the range duties now come under the heading "Special Instructions for Ranges." Greater stress is laid on the strict observance of measures for ensuring safety.

The new Regulations lay down (paragraph 101) that in gallery ranges the door towards the range must be kept closed whenever firing takes place, and that all marking must take place through the swinging door.

Thus every possible precaution is taken to guard against accidents.

The rules about the use of ammunition unexpended in range practices are worth special notice. Here again the company commander is given a much freer hand. Paragraphs 116-118 say on this subject:—

"Part of the ammunition which experience teaches us must remain unexpended during the course of the year, but not exceeding one-half of it, may at the option of the company commander be expended in firing at field targets.

"In order that these practices should fulfil their object and prove interesting, they must not be merely preparatory exercises for the range practices or a repetition of the latter. Special targets, and particularly service targets, are the most suitable. It is left to the company commander to frame his own conditions for them, and no returns of results are to be called for."

These rules afford valuable guidance for the company commander in the disposal of his surplus ammunition.

In the section on "Field Practices," most of the former principles have been retained in their essentials, but they have been somewhat enlarged upon.

In the "Instructional Exercises" (paragraphs 125-131) stress is laid on the necessity for the most careful individual instruction and education, and for the more thorough personal supervision of each man, as well as for the instruction of the subordinate commanders.

Paragraph 125 is particularly important. It lays down that aiming and firing position exercises, with every possible adjustment of sights and at ranges corresponding to these adjustments, should be carried out throughout a man's service in an interesting and instructive manner, but without too much time being devoted to them.

It is specially laid down that exercises in aiming at indistinct targets and areas of ground, at the ranges such as would occur on service, should be held throughout the year in different types of country. By these means a soldier's eyesight and his power of discerning objects will be improved, and the alertness and fighting efficiency of both leaders and men will be trained and tested.

It is also recommended that rifle practices should be carried out in conjunction with machine guns and by units at war strength.

The section "Fire Effect" supplements from a musketry point of view the paragraphs in the Infantry Regulations which deal with training for battle.

With this object the text of both Regulations has been made to agree, and where necessary purely technical paragraphs on musketry have been added. As regards choice of sights, observation of fire effect, the point of aim under different atmospheric conditions, and distribution of fire, the rules formerly laid down for guidance have been enlarged upon with a view to assisting the endeavour to obtain the greatest possible effect which circumstances will allow of from the fire of the rifle.

No important changes have been made in the method of arranging or carrying out field practices. They are divided into the same parts as before, viz., preparatory practices, group practices, section practices, practices with larger bodies.

Particular stress is laid on the necessity for the field practice being planned and carried out in a deliberate, instructive and thoroughly practical manner, in order that infantry soldiers should derive full benefit from them.

The "Instructional Practices" have been expanded.

Firing with aiming marks from behind cover when on the defensive has been introduced, so that ground over which the attackers must advance can now be swept by fire (203-206).

The chapter on "Ranging" is now condensed. The standards required for officers and non-commissioned officers, and for specially selected and intelligent privates in judging distance have been considerably raised.

As was the case previous to the issue of the 1905 Regulations, importance is again attached to "pacing and distance" and to practising pacing (215).

In "Range-finding," men trained in the use of the various instruments for taking the range are now called "range-measurers."

The number of targets has been reduced, the ring head-and-shoulder targets having disappeared.

The "head ring-target, gravel coloured," replaces the "ring head target," which was of the same nature.

In the ring target the black band has been left out. This has evidently been done with the intention of increasing the difficulties of aiming and defining the point of aim. In the same way the abolition of the ring head-and-shoulder target shows that a higher standard of efficiency is now demanded.

Only trivial alterations have been made in the rules about ammunition.

In Appendix II. is to be found a new table showing the distances traversed by troops during the flight of the bullet. In this table dismounted troops at a walk and at the double,

mounted troops at the trot, at the canter, and at full gallop are taken into consideration. The practical use of this table is seen when it is a question of shooting at moving objects.

Appendix III. shows a much simpler method of signalling during range practices. The former signals with two black and white frame discs have been abolished. They have been replaced by very simple signals with one disc, which can be used for all four kinds of targets (including the Kaiser's prize target), and also to signal "A shot has been fired; signal it."

The new Regulations, from which we have only quoted in the preceding article the more important innovations and alterations, are undoubtedly a step in advance towards the most careful training of dismounted troops in shooting. At the same time the fact that the book is simpler and clearer than before will be welcomed.

THE VON LÖBELL REPORTS ON
MILITARY MATTERS IN 1908.

*Précis from the German by Lieut.-Colonel E. GUNTER, p.s.c.,
late East Lancashire Regiment.*

Continued from February JOURNAL, 1910, p. 235, and concluded.

FIELD ENGINEERING IN 1908.

DURING the past year (1908) the Japanese issued a new Manual of Field Fortification, which follows the lines of the German *Feldbefestigungs Vorschrift*, 28th June, 1906, with profiles of similar shelter trenches. These are for the most part constructed with a deep, narrow trench, with vertical sides (against artillery fire). The Russians completed the first two parts of their "Manual" for non-commissioned officers and men. Part III., for officers, which contains more details, is still unpublished. A provisional "Manual" for the engineers is issued to them but not published.† Among other means of keeping trenches invisible from a distance, they say it is necessary to keep the surrounding grass and earth from being trodden down, or it is sure to betray their position to distant observers with good field glasses. Captain Baignol, of the French Artillery, points out the defenceless state of the north-eastern frontier of France in a future war with Germany, and recommends that a project for suitable entrenchments at intervals along this frontier, extending from Luxembourg to Switzerland, a distance of 240 kilometres (about 150 miles), should be worked out in every detail, so that it might be carried out immediately on mobilization, the necessary communications being made in peace time, and all materials collected, armoured cupola, searchlights, etc., being stored in places near the sites of the works. The Report says that the idea of thus

† Full details regarding the Russian, 1908, and French Shelter Trenches, 1906, and comparison with the authorised German Trenches, 1906, are given in the *Militär-Wochenblatt*, 1909, Nos. 105, 106. They do not differ essentially from our own, but are said to embody the experiences of the Russo-Japanese War. The Report dwells much on the necessity for *invisible* trenches, but there does not seem to be much that is new. Captain (now Major-General Sir Thomas) Fraser, in his Gold Medal Essay, and Captain Emilius Clayton, in his Prize Essay, brought this to notice in 1879.—E.G.

strengthening the existing fortifications is sound. Captain Bagnol says that sufficient time would be given, owing to the mass of troops now brought into action, to admit of this being carried out. Whichever side possessed such a fortified zone, which would strengthen the power of some corps, would be enabled to dispose of larger numbers for the offensive at the decisive point. The experiences of the Russo-Japanese War showed that the effect of artillery fire had been over-rated, and that long struggles for the mastery ensued, culminating in bloody assaults with the bayonet.

In open country, closed Redoubts are still looked on as the chief form of Field Defence, and they must be surrounded by formidable obstacles. Those of stronger profile must get the earth from an outside ditch, which is of itself an obstacle. Traverses to lessen the effect of shell splinters are required. The Russians made these with passage room round the front, as well as in rear. They made them, however, too high and conspicuous from afar. Head cover with carefully made regular loopholes proved too conspicuous. It was always found necessary to blind the loopholes. The Russians constructed blindages or shelters for the whole of the garrison of a Redoubt.

The question of the occupation of villages and localities as defensive posts has again come to the front. Some think that they should be used only for reserves, the firing line being pushed well to the front in the open. The Japanese defended the well-built Manchurian houses with high 2 ft. 4 in. thick walls; they had nothing inflammable about them but the rafters of their roofs, and were often masked by surrounding trees, which they utilised as such. The Russians cut these down for bunquettes, firewood, etc., and suffered accordingly.

Military Bridging.—In Volume 44 of the *Mitteilungen des Ingenieur-Comitees* (Berlin, 1907, A. Bath), there is a good précis of the measures taken by the Russian authorities to remedy the defects in their bridging train, and methods revealed in the late war with Japan. The Japanese were much better provided and organised. Nearly all European Armies, and certainly those of the great Powers, are, as regards the engineer service, comparatively worse provided than the Japanese, and even than the Russians were towards the end of the late war. Each Japanese Division includes 3 Companies of Engineers, the same number that in the German Army (and probably also in the Austrian) is allotted to the 2 Divisions of an Army Corps.†

†As a rule, each Divisional Bridging Train of the German Army follows the Division on the march; it carries 6 pontoons, 4 trestles, and can construct a trestle bridge 22 yards long and bridge a total width of 47 yards in one hour. It takes 328 yards on the line of march. The Corps Bridging Train can throw a bridge 167 yards long, or 238 yards altogether, in five hours. It takes up 875 yards on the march. It carries 26 pontoons and 4 trestles.—E.G.

We shall not equal the Japanese in this part of our organisation until we have 2 Engineer Battalions of 3 Companies each in each Army Corps. In Japan all the Engineers are thoroughly instructed in Bridging. In the Russian Army special Bridging Companies were used which did not answer. They were attached to Sapper Battalions, but this was given up. We (Germans) are now experimenting with 2 Engineer Battalions in an Army Corps. In 1909 we shall have 6 Regiments of Engineers, each of 2 Battalions, which will between them carry on the work of Field and Fortress Engineers, and mutually help each other.

The Report goes into the projected reorganisation by the Italian Generals, Spaccarmela and Rocchi, of the Engineer Service of that country, which it says was urgently required. There is no space here to reproduce this.

PERMANENT FORTIFICATION, 1908.

The space available does not admit of any attempt to epitomise the chapter on Permanent Fortification, contributed by Colonel Frobenius. He brings to notice the excellent articles in the *Jahrbücher* for October-November, 1908, by Hauptman Oeste, *Die Deckung der Belagerung fester Plätze*; the works of Deguise, *de Mondésir*, Pierart (who follows Colonel v. Schwarz), Paris Berger-Levrault, 1908, "The influence of Port Arthur on the Construction of Forts"; Hanika, "Neuerungen," in *Streffleur*, February, 1908. His own Essay in the *Jahrbücher* for January should also be studied. Certain plans and profiles are also given to illustrate the difference of opinion between Deguise, Hanika, and the Russian, Lieut.-Colonel v. Schwarz, with descriptions of the forts proposed.

The Report touches on the question of the Fortifications in West Russia and on the Austria-Hungarian frontier, of which a sketch was given in Beiheft 100 of the *Internationale Revue*, 1908. This it says is of importance, as it includes the improvements in the fort girdle round Warsaw (11 forts and one intermediate work surround this *place d'armes*), which it briefly enumerates, and speaks of the modern work at Dubow, the other places, Volhynia, Rovno, Lützk, etc., being only secured by Block-houses from a *coup de main*, and therefore easily overcome by a Field Army.

ARTILLERY MATERIEL† IN 1908.

General.—Observation has become more than ever of importance for Artillery effect. The Battery-leader must either be far in front of his battery and connected with it by telephone, or, if with his battery, have an elevated position, such as a

†It will be noticed that the German word *Artilleriegerät* is now substituted for the French word *Matériel*.—E.G.

field observatory affords. The simplest plan is that of an observation ladder with telescopic tubes, which can be easily carried on a horse. This, however, can only be of moderate length. Longer ladders are carried on the gun-carriage, as in Denmark, or on the ammunition wagon, as in Roumania. Now it is considered that the observer should be protected by a steel shield from shrapnel, etc., bullets. Krupp has designed one for this.* The Schneider-Creuzot firm have supplied the Bulgarian, Spanish, and Portuguese Field Artillery with portable ladders of similar make. The Zeiss hyscope and the Görz panorama attachment have been designed to facilitate making use of rearward auxiliary objects to assist the aim from concealed positions. Zeiss follows the Görz panorama telescope with his *Rückblick-Zielfernrohr* (reverse-aiming telescope), which is remarkable for its simplicity, compactness, lightness, and immediate applicability to any gun.

The experience gained in the pursuit of dirigible balloons carried out in the autumn of 1908 at Wiesbaden were not favourable to the Artillery detached to destroy them. The natural obstacles presented by water-courses and railway crossings hindered the pursuit on automobiles so much that the Artillery officers could only follow them for short distances at a time. Reconnoitring dirigible balloons may be prevented coming within a certain area by stationary high-angle fire guns. For strategical reconnaissance it will be essential to locate the chief starting points within the radius of the railway area of concentration of the armies, and the preparations in the frontier and coast-defence, etc., fortresses and harbours, as well as to ascertain the movements towards concentration, and if possible the lines of operation of land and sea forces. It would then be possible to injure the enemy materially by dropping bombs, etc., from airships on arsenals, military workshops, railway stations, bridges, locks, etc. Dirigible airships can only be really combated by others of like capacity and power.

As regards tactical reconnaissance, the dirigibles can locate the enemy's flanks, his chief reserves, field entrenchments, and concealed artillery positions, as well as his line of retreat. To combat this, especially in siege and position warfare, it will be necessary to provide a number of anti-balloon guns, distributed over the whole area, to prevent such reconnaissance of important points. On the one hand, an airship can change its direction and elevation so rapidly that aim is difficult; on the other, its material is of so easily destructible a nature that its weakness is evident. The gun required to annihilate it is a very mobile one of small calibre, capable of very rapid fire, great range and accuracy and elevation, mounted on a carriage

*The original gives a photograph of this in the appendix attached to a wagon limber, reared up on end. The shield has a fixed seat and a traversing telescope attached.—E.G.

which admits of quick traversing in all directions. Such a gun has been designed by Krupp. It is a 6·5-cm. (2·56-inch) gun L/35, mounted on a field gun-carriage of which the wheels can be swung round,* so that the elevated gun can be rapidly trailed in any direction to follow the movements of the airship. The breech closes automatically on the insertion of the cartridge, so that on great elevation it does not slide back. The barrel is 30 calibres long (7 feet 4½ inches). The common shell weighs 4 kilos. (8 lbs. 12½ oz.). It is found that shrapnel are ineffective, as the bullets only make long slits in the balloon, whereas the common damage the motors, the rudders, etc. If it should burst within the balloon it would explode the gas. It carries a sensitive fuse.

ARTILLERY MATERIEL IN INDIVIDUAL STATES.

Austria-Hungary.—The re-armament of the Field Artillery has progressed but slowly, caused by delays of delivery in certain firms, notably in Hungary. Some Artillery Regiments have actually single guns wherewith to carry on the instruction of their men. Experiments with the new 10-cm. (3·9-inch)—M99—screw mountain guns have given good results, but how far the mountain batteries have been re-armed with these is not known.

Belgium.—By the beginning of November, 1908, most of the Artillery Regiments were re-armed with the new Krupp 7·5-cm. (2·95-inch).

France.—It is stated in the Press that the Q.F. (7·5-cm.) field guns are to be provided with larger shields, and the present small shields handed over to the Mountain Batteries.†

It was stated in May that the Alpine Batteries were to be given the new 6·5-cm. (2·56-inch) mountain gun instead of the old 8-cm. (3·15-inch) gun of 1878. As the 7·5-cm. is also to be used in mountain warfare, there will thus be mountain guns of three different calibres in use. It is not known how far the provision of the Rimailho 155-cm. (6·1-inch) howitzer for the Heavy Artillery has proceeded. The 1st Army Corps at Lille is said to have received them, and that they are of an improved lighter pattern.

Great Britain.§—It is intended to introduce a new 14-pounder shell for the H.A., in place of the present 13-pounder. The re-armament of the Territorial Artillery with the 15-

*The photograph in the appendix of the original shows how this is done.—E.G.

†By the Artillery reorganization proposals of 26th October, 1908 (passed at end of December) there appear to be 619 Field Batteries and only 18 Mountain Batteries.—E.G.

§In the Report for 1907 (see the JOURNAL for February, 1909, p. 219), for Kossiput, read *Cossipore*.—E.G.

pounder converted to a barrel-recoiling gun progressed well in 1908. It was hoped that by the end of March, 1909, 536 would be ready. It was objected in Parliament that these guns were not supplied with the combined ammunition because a large quantity of the old separate ammunition was still on hand, and that the 15-pounder was no real quick-firer. A real Q.F. gun only required one motion for loading; this one required three motions owing to the separated cartridge. The conversion of this gun made it much more complicated, whereas for Territorial half-trained troops, simplicity was essential, etc. It was promised that as soon as the old separate ammunition was used up in practice, the new combined ammunition should be supplied. Full details of this 15-pounder gun are given. The details of the Heavy Artillery and siege guns were given in 1907.

Italy.—The new Italian mountain gun is of 6.5-cm. (2.56-inch). It was used in the manoeuvres of 1908. Three batteries were constructed, and the Defence Committee have decided on 30 new batteries to be made in Italy. The question of a new howitzer was gone into, and the 14.9-cm. (5.87-inch) Krupp seems to be the most favoured.

Japan.—Full details are given of the new Krupp barrel-recoiling meidji 38 Q.F. gun, 7.5-cm. (2.95-inch), partly supplied by Krupp, partly made at Osaka. Its range, with 29° elevation, is 9,295 yards, the muzzle velocity being 1,705 f.s.; weight of shell, 14½ lbs.; one-third its ammunition is common, two-thirds shrapnel. The shrapnel contains 210 bullets of about 36 to the lb.; the shield is one-seventh of an inch thick, with a lower hinged flap. The travelling weight of the gun, with carriage and shield, is about 17½ cwt. It has a hydraulic brake with a spring pull. The re-armament was completed in 1908. A new mountain gun is on trial. Full details are given of the 15.5-cm. gun of 1905, the 12-cm. and 15-cm. howitzers of 1905.

SMALL ARMS IN 1908.

The question of the introduction of automatic rifles is still unsettled. As soon as one of the great Powers adopts these the others will follow suit, for there can be little doubt that the military authorities of these have decided upon the system to be adopted. France will probably be the first to start with one, as she still retains the obsolete Lebel rifle. The best kind of smokeless powder is one difficulty, and the question of the envelope is another. If it were possible to substitute an aluminium wrapper for the brass one, the weight would be so much less that each soldier could carry one-third more rounds. In the *Militär-Wochenblatt*, No. 27, of the 27th February, 1908, details were given of a bullet invented by Mr. Puff, an engineer in Spandau, which the late Lieut.-Colonel Professor Heyden-

reich said would much facilitate the construction of an automatic rifle of small calibre. We do not know what experiments have yet been made with aluminium.

Austria-Hungary.—Experiments with the new pointed bullet are still being continued. An automatic self-loading pistol (Roth Mark II.) has been adopted for the Army; the first issues are to be for the cavalry service.

France.—In March, 1908, a discussion was held in the Senate. M. Rouby said a M. Meunier and an officer of the School of Musketry at Châlons had invented an automatic rifle remarkable for lightness and durability, which would cost 50 francs, as against 32 francs for the Lebel. General Piquart said that though an old rifle, the Lebel gave, since the introduction of their D pointed bullet, ballistic results equal to that of any modern rifle, and there were sufficient of these in reserve to replace any worn-out rifles; that no decision had been come to as to an automatic rifle; that there was no particular hurry; and that re-armament would cost the country 500 million francs (£20,000,000)! If decided on, it could be carried out in two to three years.

The Report gives a diagram of this bullet and details of weight, length, etc., and ballistics taken from "Balle D par le Lt.-Col. Prat, 12 Que de la Grange-Balelière, Paris."

Germany.—The German Cavalry is to be armed with a new carbine in order that it may be able to cope with Infantry in dismounted action. It has been thoroughly tested at the Infantry School of Musketry. It is to be given a longer barrel, and is to fire the Spitz (pointed) bullet. It is to be sighted up to 2,000 metres. Experiments have been made with a short sword bayonet for this. The Field Artillery will probably be armed with the old Cavalry Mauser carbines. All non-commissioned officers and men hitherto armed with a revolver are now to have the new automatic pistol, Mark 1908.

Great Britain†—Opinions still differ as to the merits of the Lee-Enfield short rifle. The Report here quotes at great length from the *Army and Navy Gazette*. It briefly notes (chiefly from the *Militär-Wochenblatt* of 21st May, 1908, No. 64) the improvements made as regards sighting, etc., in Mark III., but remarks that it weighs 8 lbs. 10½ oz., against 8 lbs. 2½ oz. of the earlier pattern. The Army Council has sanctioned the introduction of the Japanese bayonet, which is three inches longer than the present one for the Lee-Enfield short rifle, which was well reported on from India, it says, after the Zakka Khel expedition.

†For the W.O. conditions for British Automatic Rifles, see the JOURNAL, December, 1909, Military Notes, page 1651.—E.G.

It has been decided, it says, to re-arm the Territorial Army with the Lee-Enfield long rifle. Nothing is known as to the introduction of an automatic service rifle.

Russia.—Though experiments are being made with new pointed bullets and with automatic rifles, no re-armament of the Infantry is yet contemplated. Machine gun detachments have been armed with the 3-line carbine and a curved dagger bayonet. Officers are allowed to carry either Browning or the Borchhardt-Lüger pistol.

Trials have been made with a new bayonet. Some officers favour the long triangular one; others the shorter dagger-bayonet.

Spain.—A new pointed bullet has been tried for the Spanish Mauser rifle, 25,000 having been supplied for that purpose by the *Deutsche Waffen und Munitionsfabriken*, with a muzzle velocity of 2,820 f.s. It pierced at 40 metres the shield carried by the Schneider 7.5 Field Batteries, which is 4.25-mm. (about 17-inch) thick. These shields thus do not offer as much resistance as the Krupp shields of like thickness.

United States.—The new Springfield rifle, with sights of 1905 pattern and dagger bayonet, was issued to all the Regular troops in 1908, and is said to have given satisfaction. New telescopic sights were to be added in 1909. The powder used with the new pointed bullet is called *pyrocellulose*; the nitro-glycerine powder is no longer used, as it wears away the inside of the barrel so quickly. The new bullet Mark 1906 weighs 150 grains; the powder charge is 46½ grains.

MACHINE GUNS.—The Report gives full accounts of the machine guns in use in 1908. These are not reproduced here because Captain R. V. Applin's admirable lecture on the subject and the useful discussion thereon is published in the *JOURNAL* for January, 1910, p. 34. It shows what advances foreign Powers have made with these weapons and their uses, compared with our want of progress.

MILITARY COMMUNICATION IN 1908.

AIRSHIPS, ETC., 1908.

General.—The year 1908 was epoch-making. Most of the great Powers were engaged with airship experiments. Captive balloons are still of use in reconnoitring for Heavy Artillery. Free balloons for siege work, though motor airships and wireless telegraphy threaten their existence.

Aeroplanes have not yet obtained any important military success, but they will eventually. For communication they are undoubtedly of use. For observation and reconnaissance, their success is probable. Their comparatively small bulk, the

facility with which they are started, and their great speed will be of great advantage to the service which adopts them.

The Artillery have followed with interest the progress of airships: first as to how best to destroy them, secondly as to their ability for throwing shells and high explosives from them. Both France and Germany declined in a declaration, dated 18th October, 1907, to accept a proposal made at the second Hague Peace Conference to pronounce such actions contrary to the usage and customs of war.

At Berlin in October, 30 airships were simultaneously filled for the Gordon-Bennett trials for the time races for which the Emperor William offered a prize. The record time of 73 hours in the air was accomplished by two Swiss officers using German material for their airship. One balloon fell into the sea, and two young German officers were drowned. In France a national aeronautic league has been founded.

France.—When the *Patrie* perished on the 3rd November, 1907, *La Ville de Paris** was placed at the disposal of the Government by its owner M. Deutsch de la Meurte, and taken into the Service. It cannot, however, well be compared with *La Patrie*.

The *Clément-Bayard* airship has made several good flights. It belongs to the flexible type. It has a good motor. The *Ville de Bordeaux* is ready, and the *Colonel Renard* in the course of completion. The *République* has actually replaced the *Patrie* in the Service. It is said to have a more powerful motor and to have performed well on trial.

Juillot, the constructor of the *Patrie*, is engaged in a new airship which will be driven by two motors of 100-H.P. each.

On the whole, progress is somewhat at a standstill; experiments are still being made. Opinion is inclined to semi-rigid or flexible in preference to rigid airships.

Germany.—A third company has now been added to the Airship Battalion. It consists of 3 officers and 85 non-commissioned officers and men selected from different corps. They wear the uniform of their regiments.

Germany undoubtedly made most progress in the past year; next to it France; but neither State possesses airships fulfilling at present all requirements for war.

The Report details all the now well-known incidents of the Zeppelin airship disaster and the improvements in the *Parseval* and *Gross* in 1908, which there is no space here to reproduce.†

*A photograph is given of this airship in the Appendix to the original.—E.G.

†Complete Notes of the progress of Military Aerostation in Germany are given in the JOURNAL for September, 1909, p. 1240.—E.G.

FIELD TELEGRAPH AND TELEPHONES.

The Report contains a valuable chapter by Lieutenant Tetzlaff, of No. 2 Telegraph Battalion of the German Engineers, giving an account, with a diagram, of the Japanese telegraph and telephone services in the late war, which is of great interest but too long to epitomise.

PART II.

Part II. concludes as usual with a very complete list of military books and periodicals (the chief articles in the latter being noticed) published during the year in Austria-Hungary, France, Germany, Great Britain. Among the latter the Report especially commends the summary published quarterly in this JOURNAL. The latest publications of the History Section of the German General Staff, including those on the Russo-Japanese War in *Kriegsgeschichtlichen Einzelschriften*, are noticed. Colonel E. M. Lloyd's "A Review of the History of Infantry" is considered unequal. Colonel de Bas and the Italian General Pollios' "Waterloo," and M. Louis Navez's "Guide" are mentioned. The other publications in France, connected with the life of Napoleon are catalogued, while many German historical books of the *Befreiungskrieg* are enumerated. Works about German South-West Africa and recent fighting, and Max Dittrich's "Life of King Albert of Saxony as a General," are among the many in this interesting list.

PART III.

This part chronicles the operations against natives in South-West Africa and in the Cameroons. In the former country a decisive expedition against Simon Copper by a camel corps under Captain v. Erckert, is described in detail. Simon Copper fled across the border into British territory on the 16th March, but the gallant and experienced German Commander was killed. Several surprises were, however, effected by the Hottentots. These may necessitate further reinforcements being sent out.

The British operations, under General Willcocks, on the N.W. Frontier of India in February and May, 1908, are briefly described, and very highly praised for their skilful conception and energetic execution.

The operations of the French in 1907-08 in Morocco, under Generals Doude and d'Amade, are carefully epitomised with neat sketches.

In THE OBITUARY the death of the well-known French administrator and writer, Lieut.-General L. Lewal; the Russian General Lenewitsch; and the Japanese Marshal Noduz, are chronicled with brief notices of their services.

NAVAL NOTES.

The following are the principal appointments which have been made:—

Admiral—The Hon. Sir A. G. Curzon-Howe, G.C.V.O., K.C.B., C.M.G., to be Commander-in-Chief at Portsmouth. Vice-Admiral—Sir E. S. Poë, K.C.B., K.C.V.O., to be Commander-in-Chief, Mediterranean. Captains—H. J. Savill to "Sutlej"; C. R. de C. Foot to "Magnificent"; G. P. Hope to "Bulwark" as Flag-Captain; M. Woolcombe to "Brilliant"; H. Blackett to "Eclipse"; D. R. Nicholson to "St. Vincent"; A. E. Grant to "Lord Nelson"; B. H. Barttelot to command of Chatham Gunnery School; D. L. Dent to "Blenheim" and as Captain of destroyers. Commanders—J. S. Dumaresq, M.V.O., to "Swift"; C. P. Beaty-Pownall to "Perseus"; P. H. Warleigh to "Prometheus."

Vice-Admiral Sir G. Neville, K.C.B., C.V.O., commanding the Third and Fourth Divisions of the Home Fleet, will transfer his flag on the 18th inst. from the *Magnificent* to the *Bulwark*; this will mark the commencement of a strengthening of the battleships of the 3rd Division of the Home Fleet, which at present consist of the *Magnificent* and her eight sisters, distributed between the Nore, Portsmouth, and Devonport. The *Bulwark* at present belongs to the First Battle Squadron of the Home Fleet, and her place is to be taken by the new first-class battleship *Vanguard*, which was commissioned on the 1st inst. at Devonport. The *Vanguard* is the largest and most powerful of the battleships of the *Dreadnought* type, which has as yet been commissioned, and although the last of her trio—the other two being the *St. Vincent* and the *Collingwood*—to be laid down, she is the first to be ready for sea, having been completed by Messrs. Vickers, Maxim & Sons, her builders, in a little under twenty-three months, a fact which reflects great credit on the contractors and shows their ability to beat the dockyards, the *St. Vincent* and *Collingwood* being under construction at Portsmouth and Devonport respectively. As she is the latest, so she is the cheapest of the *Dreadnoughts* yet constructed, her cost with her armament being £1,624,878, or £84,400 per ton; the cost of the original *Dreadnought* was £1,813,100 or £101.29 per ton.

The ten ships of the *Dreadnought* type which we shall have in commission when the *Collingwood* and *St. Vincent* also take their places in the Home Fleet—which should be during the next two months—will represent a capital expenditure of £17,355,394, an average of slightly less than a million and three-quarters sterling per ship, and of £184,632 for each 12-inch gun mounted, the total being 94.

Steam Trials.—The new first-class battleship *St. Vincent*, which will be commissioned at Portsmouth in a few days, attained a speed of 20.9

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knots on her full-power trials with the Parsons turbine machinery, developing 25,900 shaft horse power. The coal consumption was only 1.48 lbs. per shaft horse power per hour. The economy of all warship propelling machinery, whether of the reciprocating or turbine type, falls off at low powers, but in the case of the *St. Vincent* the coal consumption at four-fifths power, when the speed was well over 19 knots for 17,200 shaft horse power, was only 1.68 lbs. per shaft horse power. The *St. Vincent* was laid down at Portsmouth on 30th December, 1907, and launched on the 10th October of the following year.

General.—The warships, exclusive of torpedo boats and submarines, launched during the year 1909, with their tonnage, I.H.P., and estimated speed, were as follows:—

Great Britain.—First-class battleships: *Vanguard*, 19,250 tons, 24,500-I.H.P., 21 knots speed; *Neptune*, 20,250 tons, 25,000-I.H.P., and 21 knots speed. First-class armoured cruiser: *Indefatigable*, 19,200 tons, 45,000-I.H.P., and 26 knots speed. Third-class protected cruisers: *Glasgow*, *Gloucester*, *Liverpool*, *Newcastle*, 4,800 tons, 22,000-I.H.P., and 25 knots speed; *Blanche*, *Bellona*, 3,350 tons, 18,000-I.H.P., and 25 knots speed. Destroyers: *Viking*, *Zulu*, 1,000 tons, 15,500-I.H.P., and 33 knots speed; *Maori*, *Nubian*, 980 tons, 15,500-I.H.P., and 33 knots speed; *Crusader*, 945 tons, 15,500-I.H.P., and 33 knots speed; *Renard*, *Harpy*, 920 tons, 12,000-I.H.P., and 27 knots speed; *Grasshopper*, 890 tons, 12,000-I.H.P., and 27 knots speed; *Beagle*, *Bulldog*, *Foxhound*, 860 tons, 12,000-I.H.P., and 27 knots speed. All these vessels are fitted with turbine engines.

Austria-Hungary.—First-class battleship: *Radetsky*, 14,600 tons, 20,000-I.H.P., and 20 knots speed. Third-class cruiser: *Admiral Spaun*, 3,540 tons, 15,000-I.H.P., and 26 knots speed. Destroyers: *Csikós*, *Velebit*, *Reka*, *Dinara*, 400 tons, 6,000-I.H.P., and 28 knots speed.

Brazil.—First-class battleship: *Sao Paulo*, 19,280 tons, 24,000-I.H.P., and 21 knots speed. Third-class cruisers: *Bahia*, *Rio Grande do Sul*, 3,100 tons, 18,000-I.H.P., and 26 knots speed.

France.—First-class battleships: *Condorcet*, *Danton*, *Diderot*, *Mirabeau*, *Voltaire*, of 18,318 tons, 22,500-I.H.P., 19 knots speed. Destroyers: *Cavalier*, *Janissaire*, *Lansquenet*, *Fantassin*, *Mameluck*, *Tirailleur*, 450 tons, 8,500-I.H.P., and 28 knots speed.

Germany.—First-class battleships: *Thüringen*, *Ost-Friesland*, *Helgoland*, no reliable details yet published, but it is believed that they are to have a displacement of 22,000 tons. First-class armoured cruiser: *Von der Tann*, 18,700 tons, 44,000-I.H.P., and 25 knots speed. Third-class cruisers: *Cöln*, *Augsburg*, 4,350 tons, 20,000-I.H.P., and 28 knots speed; *Mainz*, 4,300 tons, 20,000-I.H.P., and 28 knots speed. Destroyers: 14, of which 12 have a displacement of 620 tons, 14,000-I.H.P., and 30 knots speed. The other two, *V 180* and *V 181*, are two of a fresh group of 12 provided for in last year's Estimates, details of which have not yet been allowed to leak out; they have been launched in less than 9 months from date of laying down. River gunboat: *Otter*, 270 tons, 1,400-I.H.P., and 14 knots speed.

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Italy.—No large ships were launched. Destroyers: *Alpino*, *Pontiere*, *Carabinieri*, *Fuciliere*, 400 tons, 6,200-I.H.P., and 29 knots speed.

Japan.—The only vessel launched was the large destroyer *Umikazé*, 1,170 tons, 21,000-I.H.P., and 35 knots speed.

The Netherlands.—Battleship: *De-Zeven-Provincien*, 6,630 tons, 7,500-I.H.P., and 16 knots speed.

Russia.—No large ships were launched. First-class gunboats: *Ardagon*, *Kars*, 734 tons, 1,000-I.H.P., and 14 knots speed.

United States.—First-class battleships: *Utah*, 21,730 tons, 28,000 I.H.P., and 21 knots speed; *Delaware*, 20,321 tons, 25,000-I.H.P., and 21 knots speed. Destroyers: *Smith*, *Lamson*, *Preston*, *Flusser*, *Reid*, 710 tons, 15,000-I.H.P., and 33 knots speed.

It would appear that Germany again leads in the matter of the total tonnage of warships launched in 1909 (exclusive of torpedo-boats and submarines, reliable details of which are not obtainable). The figures approximately for the four leading naval Powers are (allowing the 3 German battleships the same displacement as our own *Neptune*) as follows:—Germany, 100,160 tons; Great Britain, 94,815 tons; France, 94,290 tons, and the United States, 45,601 tons. Taking the figures for armoured ships alone, however, they stand thus: France, 91,590 tons; Germany, 79,450 tons; Great Britain, 57,900; and the United States, 42,051 tons.

According to Lloyd's Return, however, the total tonnage of warships launched of all classes in 1909 was: Germany, 99,116; Great Britain, 98,790; France, 95,740; United States, 48,639; other Flags, 62,190 tons, but on what data the figures are founded we do not know.

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The new battleship *Minas Geraes*, the first to be completed of the three battleships of the *Dreadnought* type ordered in this country for the Brazilian Government, was handed over to the Brazilian Naval Commission on the 5th January after having successfully gone through her trials and fulfilled every condition of the contract. She has been constructed by the great Elswick firm on the Tyne, the machinery, however, having been all supplied by the Vickers firm. The *Sao Paulo*, the second of the trio, is being built and engined by the Vickers Company at Barrow; she was launched on the 19th of last April, and is now approaching completion. The third, the *Rio de Janeiro*, has recently been commenced at Elswick.

The dimensions of the three ships are as follows: Length over all, 543 feet, between perpendiculars, 500 feet; beam, 83 feet; depth, 42 feet 3 inches; draught, 25 feet; displacement, 19,280 tons. The engines, which are of the reciprocating type, are to develop 24,000-I.H.P., giving a speed of 21 knots, while the normal coal supply is 800 tons, and the total bunker capacity 2,360 tons. The radius of action at 10 knots to be not less than 10,000 knots.

Protection is afforded by a complete belt of Krupp cemented steel 9 inches in thickness for a depth of over 22 feet 4 inches, 5 feet of which is below the normal load water-line. Forward and aft there is a transverse bulkhead 9 inches thick, enclosing the barbettes. Forward and aft of these bulkheads the water-line belt tapers first to 6 inches and then to 4 inches at the extremities. The upper strake amidships, which

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reaches to the upper deck, is also of 9-inch armour, and within the citadel thus formed the 4.7-inch Q.F. guns are mounted. The armour on the barbettes is 9-inch, as are also the armoured hoods. There are two protective decks, the water-line deck being 2 inches thick and the upper one 1½ inch thick. All the armour was manufactured at the Openshaw works of the Elswick firm, and the 9-inch plates on their trial were subjected to three rounds, the striking energy in each case being 9,300 foot-tons. The results were so satisfactory that it was decided to fire an additional round with a striking energy of 10,300 foot-tons. The whole result was exceedingly satisfactory, the penetration in no case exceeding 2½ inches.

The armament consists of twelve 4.5-calibre 12-inch guns, twenty-two 4.7-inch Q.F. guns, and a certain number of 3-pounder and smaller weapons. The 12-inch guns are mounted in pairs in six hooded barbettes or gun-houses. Four of these gun-houses, two forward and two aft, are on the centre line of the ship, while amidships on each side is a similar gun-house, the superstructure being cut away in a semicircle to allow of a training arc of 180° for each of these pairs of guns. Four of the gun-houses are on the upper deck level, but the after one of the two forward pair of turrets, and the forward one of the two after pair are raised some 12 feet to allow of the guns firing over the turrets in front of them, the centres of the turrets of each pair being about 36 feet apart. Eight of the 12-inch guns can thus be fired forward, including the two amidships on each side, eight aft, and ten on either broadside. The weight of the projectile for the 12-inch guns is 850 lbs., and the charge 285 lbs. of cordite. Fourteen of the 4.7-inch guns are mounted on the main deck in the central battery, and eight in the superstructure, four forward—two on each side of the bridge—firing right ahead in line with the keel, with a considerable angle of fire abaft the beam, while aft are also four such guns similarly arranged. The upper works forward and aft are indented in order that the forward and aft 4.7-inch guns may fire ahead or astern in line with the keel as well as on the beam. The gun-firing trials were very successful. Two rounds were first fired from each gun in succession. Five turrets were next all trained on the port beam, each gun being given an elevation of 7° and loaded with full charge. These guns were all fired simultaneously, which constituted the heaviest broadside ever fired by a warship, and is the first occasion of the simultaneous firing of ten 12-inch guns on the broadside, as the *Minas Geraes* is the first ship upon which such a performance was possible. Another trial of interest was the firing of one pair of 12-inch guns immediately over another 12-inch turret. Some little apprehension existed in the minds of gunnery officers as to the effect the blast of the guns in the rear might have on the lower turret in front of it, and representatives from several foreign Governments obtained special permission to witness it. The observations made when the upper pair of guns were fired showed that the crews in the lower gun-houses could have remained at their stations without suffering inconvenience, although the muzzles of the guns fired were only some five feet above the roof of the turret, the heavy plating of which proved sufficiently strong.

The steam trials commenced on 14th September, when a 48 hours' trial at 10 knots was run; six consecutive runs on the measured mile

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were also made—three with and three against the tide—in order to ascertain the speed of the vessel and the revolutions corresponding to that speed. The trial was run in the North Sea, and the six-mile runs on the measured mile at St. Abb's Head. The mean of mean speeds was 10·623 knots, the mean revolutions 67·23, and the mean I.H.P. 2,683. The speed during the 48 hours was 10·468 knots, the mean revolutions 66·3, and the mean I.H.P. 2,495. The thirty hours' trial at three-fourths of the total power, to give a speed of 20 knots, was commenced on 20th September. All the boilers were in use. Six runs on the measured mile were made, when the mean of mean speeds was 19·35 knots, with a mean I.H.P. of 16,353 and 128·26 revolutions. During the run extremely bad weather was experienced, the sea being very heavy, the spray reaching the upper bridge, 60 feet above the water-line; but throughout the trial the ship behaved excellently, and showed herself extremely steady. On 26th September the eight hours' full-speed trial under natural draught was made, and another six runs made on the measured mile, with the following results: mean speed, 20·863 knots; revolutions, 138·5 per minute; I.H.P., 20,948; the mean speed for the whole eight hours was 20·762 knots; the mean I.H.P., 21,265; and the revolutions, 137·85. On 29th September the full-power forced-draught trial at 250 lbs. pressure was made, the results of the six runs being: mean of mean speeds, 21·189 knots; mean I.H.P., 25,519; mean revolutions, 146·07. On a subsequent trial with 280 lbs. pressure, the mean speed was increased to 21·431 knots; the I.H.P. to 27,212; and the revolutions to 147·47. The machinery, which is of twin-screw, triple-expansion, four-cylinder type, worked without a hitch, the steam being supplied by 18 water-tube boilers of the Babcock and Willcox type, while the coal consumption also proved to be extremely economical.

The trials were attended throughout by Admiral Maurity, the senior officer of the Brazilian Navy and President of the Commission, and the other members of the Brazilian Naval Commission. The *Minas Geraes* left in the early part of last month for Rio de Janeiro.—*Précis from Engineering* and "other sources."

The following are the principal promotions and appointments which have been made:—

Capitaines de Vaisseau—D. M. Gauchet to Rear-Admiral; L. E. A. M. Jochaud du Ressaix to "Gloire"; A. Rouyer to "Ernest-Renan." Capitaines de Frégate—E. F. Fournier to Capitaine de Vaisseau; B. Mauros to "Arc" and command of 5th Mediterranean Destroyer Flotilla; J. Boissière to "Surcouf"; C. M. Lagrèssille to "Lavoisier"; G. H. M. André to "Forbin"; A. L. Lallemand de Driksen to command of Fixed Defences at Toulon; M. J. G. Sénès to "Hallebarde" and command of 3rd Mediterranean Torpedo Flotilla; E. G. Glon dit Villeneuve, to "Pique" and command of 3rd Mediterranean Submarine Flotilla; C. L. Ducoroy to "Requin"; M. H. Vesco to "Chateaurenault"; P. J. Carol to be Chief of Staff to Rear-Admiral Mallet, commanding Algerian Naval Division.—*Journal Officiel de la République Française.*

The first-class armoured cruiser *Montcalm*, bearing the flag of Rear-Admiral De la Croix de Castries, the newly-appointed Commander-in-Chief

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in the Far East, left Brest on the 31st January for Saigon, where she is due to arrive on the 23rd inst. The *Montcalm* relieves the first-class protected cruiser *D'Entrecasteaux* as the flagship on the station.

The third-class cruiser *Lavoisier* commissions on the 10th inst. at Lorient for fishery protection duties in Newfoundland, and the third-class cruiser *Surcouf* commissions on the 25th inst. at Sidi-Abdallah (Bizerta) for the same duty.

Cruises of Submersibles.—For a year past the submersibles built on the plans of Chief Engineer Laubeuf have been making a series of long-distance runs, manœuvres, etc., which are worthy of attention.

The following is a brief account of these performances:—

From the 6th to 9th October, 1908, the three submersibles *Pluviôse*, *Ventôse*, and *Germinal* ran 730 miles over the following course: Cherbourg to Brest, Brest to Dunkirk, Dunkirk to Cherbourg. This distance was covered without any stop in 82 hours—that is, with a mean speed of 9 knots. The boats had fine weather but were delayed by fog. During the last 17 hours, the mean speed was maintained at 10 knots without difficulty, which clearly shows that the machinery and boats were subjected to no undue strain. The trial could have been prolonged for a much greater time, the crew doing duty in watches and being able to sleep on board under excellent conditions.

From 6th May to 11th June, 1909, the submersibles *Pluviôse* and *Ventôse* took part, together with two submarines (*Emeraude* and *Opale*), in the manœuvres of the Northern Squadron.

1st Exercise: barring the Straits of Dover.

The *Pluviôse* alone succeeded in torpedoing the squadron in its passage.

2nd Exercise: defence of the approaches to the harbour of Lorient.

The submersibles and submarines made more than 40 successful attacks on the vessels of the Northern Squadron, which would all have been torpedoed.

3rd Exercise: The submarine *Opale* having been wrecked, the two submersibles and the submarine *Emeraude* set out from Lorient and blockaded the port of Cherbourg for three days and three nights, making 12 successful attacks upon the squadron as it entered or left the harbour; then, without returning to port, they went from Cherbourg to Dunkirk and back to Cherbourg at a speed of 11 knots (9 knots only for the submarine *Emeraude*).

In this last exercise they remained six entire days without any communication with the shore, covering a total distance of 1,000 miles without receiving new supplies of any kind.

These manœuvres have confirmed the comparative tests of 1905 between the submersible *Aigrette* and the submarine *Z*, by showing the superiority of boats on the Laubeuf system.

From 6th to 8th September, 1909, the two submersibles *Circé* and *Calypso* made a run from Toulon to the Strait of Bonifacio, from there to Mentone, and from Mentone to Toulon. The *Calypso* went 560 miles without stopping in 59 hours. The *Circé* suffered some trifling damage

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to her tubes, which obliged her at first to slow down and then to put into Nice for a few hours.

The submarines had fine weather from Toulon to Bonifacio, but then they experienced a strong easterly blow, and until their return to Toulon they experienced a sea from nine to twelve feet high, first abeam and then from astern, in which they behaved admirably.

In September, 1909, again, the *Floréal* went from Cherbourg to Brest and back, stopping in at Lezardrieux and at Saint Malo; the *Prairial* from Cherbourg to Calais; the *Pluviose* from Cherbourg to Dunkirk and back, with stops at Dieppe and Havre; the *Circé* went from Toulon to Bizerta, her new home port, etc.

But the most remarkable series of runs is beyond doubt that which was executed by the submarine *Papin* from the port of Rochefort. From 6th to 9th September, 1909, she went from Rochefort to Cherbourg, putting in at Brest; 22nd to 23rd September she returned from Cherbourg in one stretch. Leaving Rochefort, convoyed by the *Henry IV.*, for Bizerta, she made the run from Rochefort to Oran in one stretch in six days, from 28th September to 4th October, a distance of 1,200 miles, covered partly during bad weather. She then started for Bizerta, where she arrived on 12th October. She thus covered a distance of over 2,000 miles from 21st September to 12th October. The distance of 1,200 miles without stop is much the longest covered by a submarine boat in France or in any foreign country. The English and American submarines have never made more than 300 miles without stopping; the German *U1* went from Heligoland to Kiel, round Denmark (600 miles); the Swedish *Hvalen*, built in Italy, attracted great attention by her run from Spezia to Cartagena, which was not 700 miles.

It will be seen, therefore, that the *Papin* made a record of which the French Navy have a right to be proud.

All the French submarines referred to above were built upon the plans of Engineer Laubeuf.—*La Vie Maritime*.

The Naval Estimates for 1910.—The most important figures of the Estimates have now been published:—The ordinary Estimates amount to 38,992,110 yen (£8,123,356), as against 35,323,172 yen (£7,358,994) for last year, showing an increase of 3,668,938 yen (£764,362); the Extraordinary Estimates amount to 37,088,708 yen (£7,726,814), as against 36,728,843 yen (£7,651,842) for last year, showing an increase of 359,865 yen (£74,971). The total amount of the Estimates thus amounts to 76,080,818 yen (£15,850,170) as against 72,052,015 yen (£15,010,836) for 1909, showing an increase of 4,028,803 yen (£839,333).

The principal increases are as follows:—

In the Ordinary Estimates:

1,296,858 yen (£270,178) for the upkeep of ships in commission;

212,187 yen (£44,205) for an increase in the Personnel;

2,500,000 yen (£520,833) for increases of pay.

In the Extraordinary Estimates:

802,000 yen (£167,083) for harbour works at Chinkaiwan, and other work at Kure, etc.

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The amount to be expended on new construction is to be 10,689,586 yen (£2,226,997).

The strength of the *Personnel* has been fixed at 41,906 officers and men.

Organisation of the Fleet.—The ships in commission are organised as follows :—

1st Squadron

First-class battleships.—*Mikasa* (flagship), *Shikishima*, *Suruo* (ex-*Pobieda*), *Sagami* (ex-*Peresviet*), *Iwami* (ex-*Orel*), *Hizen* (ex-*Retvisan*).

2nd Squadron.

First-class armoured cruiser.—*Yakumo* (flagship);

Coast-defence battleships.—*Okinoshima* (ex-*Apraxine*), *Minoshima* (ex-*Senjavin*);

Protected cruiser.—*Yodo*.

3rd Squadron.

Protected cruisers.—*Akashi* (flagship), *Suma*;

First-class gunboats.—*Fushimi*, *Sumida*, *Uji*.

Naval Strength of Japan.—Speaking last year before the Budget Committee, the Minister of Marine made the following statement of the actual condition of the fleet.

According to him there are on the active list of the Navy thirteen battleships, twelve armoured cruisers, forty-three other cruisers, fifty-nine destroyers, and sixty-nine other torpedo craft, making a total of all classes in actual service of one hundred and ninety-six, with a total tonnage of 396,368 tons, which will be raised to 489,704 tons when the ships now under construction are completed.

The ships which have completed their trials are the first-class battleship *Satsuma*, which made a mean speed of 20·5 knots, the contract being only for 18 knots, the first-class armoured cruiser *Ibuki*, the small cruisers *Yodo* and *Mogami*, the destroyers *Umikaze*, *Uranami*, *Isonami*, *Ayanami*, and the submarines Nos. 8 and 9. Although they have completed their trials, neither the *Satsuma* nor the *Ibuki* are yet ready for commissioning. The ships under construction are the first-class battleships *Aki*, *Settsu*, and *Kawachi*, the first-class armoured cruiser *Kurama*, 3 protected cruisers, 3 destroyers, and 1 submarine.

The following are believed to be the dimensions of the two new battleships *Kawachi* and *Settsu*, the first of which was laid down at Kure, on the 18th of January of last year, and the second at Yokosuka on the 1st April :—Length, 480 feet; beam, 84 feet; mean draught, 28 feet, with a displacement of 20,800 tons. The engines of the Curtis turbine type are designed to develop 26,500-I.H.P., to give a speed of 20·5 knots. The armament to consist of twelve 12-inch guns, ten 6-inch, and twelve 4·7-inch Q.F. guns, with five submerged torpedo tubes. This is the armament which, it is believed, is being supplied to the *Satsuma* and *Aki*.

The three protected cruisers are to have a displacement of 5,000 tons, two of which will be fitted with Curtis turbines and the third with Parsons' turbines; the engines are to develop 22,500-I.H.P., to give a

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speed of 26 knots. It is believed the armament will consist of two 50-calibre 6-inch Q.F. and ten 4.7-inch Q.F. guns with two torpedo discharges. They are being constructed, one each, at the Kure, Nagasaki, and Kobe Yards respectively. According to the Minister of Marine the dockyards at Kure and Yokosuka will be reserved solely for the construction of battleships and armoured cruisers, while second-class cruisers and smaller vessels will mostly be built at Maizuru, Sasebo, and the smaller yards. The work of enlarging the dockyards and increasing and bringing up-to-date of the plant, is proceeding systematically, while the system of coast-defence is being materially improved by the girdling of the coast with numerous wireless telegraphy stations.

The work of construction for the last two years or more has been proceeding very slowly; this is in a great measure due to the fact that the armour plate and ordnance factories are at present unable to cope with the demands for the new ships, and, owing to financial tightness, the enlargement of these factories, although proceeding steadily, has been delayed. The development of the Government's steel works at Makamatsu is being gradually carried out, and in a short time the large new steel works, which are being erected at Muroran jointly by the Armstrong and Vickers firms, will be completed; these works, it is understood, will ultimately be taken over by the Government, and will be carried on under the direction of the Japanese Admiralty, who will be assisted by English experts.

The work of reconstructing the captured Russian ships is now almost completed. The battleships *Hizen* (ex-*Retvizan*), *Iwami* (ex-*Orel*), *Suwo* (ex-*Pobieda*), *Sagami* (ex-*Peresviet*), *Okinoshima* (ex-*Apraxine*), *Minoshima* (ex-*Senjavin*), the cruiser *Tsugaru* (ex-*Pallada*), and the cruiser *Sutsuya* (ex-*Novik*), are already fitted for sea, while the *Tango* (ex-*Poltava*), the *Iki* (ex-*Imperator Nicolai I.*), and the *Soyā* (ex-*Variag*) are now nearly ready; the *Soyā* will eventually be employed as a training-ship for naval engineer students. It is, however, doubtful whether any of these ships are really worth the large sum of money which their repair and reconstruction has cost.—*Marine Rundschau*.

Steam Trials.—The new first-class armoured cruiser *Ibuki*, equipped with Curtis marine reversible turbines, built by the Fore River Shipbuilding Co., of Quincy, Mass., and shipped to Japan last year, has just completed a most satisfactory trial. Three trials were conducted, one under cruising conditions at two-fifths power, one at the rated full power guaranteed, and one at overload conditions at maximum power. The rated full power of these turbines was guaranteed to be 21,600 brake horse-power and the steam consumption not more than 15 pounds of steam per brake horse-power per hour. On the trial at this power the steam consumption was 14.1 pounds. On the two-fifths power trial the steam consumption was 16.75 pounds, whereas the guarantee was 17 pounds. On the maximum full power trial over 27,000 horse-power was developed, and the steam consumption was 18.88 pounds. The following are the results of the trials: two-fifths trial, average speed, 16.945 knots; brake horse-power, 10,077; revolutions per minute, 189; water rate, 17.4; water rate officially corrected to contract steam conditions and 200 R.P.M. 16.75; machinery working

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very satisfactorily. At the full-speed trial under natural draught the average speed was 20 knots; brake horse-power, 21,000; available energy, 329 B.T.U.; water rate, 14.126; revolutions, 235. At the final trial at full speed the average speed was 21 knots; brake horse-power, 27,142; steam pressure, 240 pounds per square inch; available energy, 336; revolutions, 250; water rate, 15.03; water rate officially corrected, 13.88; trial of machinery is very satisfactory. The maximum guaranteed horse-power was 21,600, and the last trial was made with the overload nozzles provided to obtain the large overload capacity. The guarantees of steam consumption were made on the basis of 250 pounds pressure in the steam chest and 28-inch vacuum, and the water rates obtained on trial were to be corrected from actual steam conditions to correspond to these. The reversing power machinery is very satisfactory. The maximum guaranteed horse-power of the turbines was tested at the end of the four-fifths power run by running astern for fifteen minutes, keeping the same firing interval and conditions in the boiler-room as were used in going ahead. The turbines ran reversed at 186.3 revolutions, and developed 11,035 brake horse-power.—*Army and Navy Journal*.

United States.*Report of Navy Bureau of Ordnance.*—Rear-Admiral

N. E. Mason, Chief of the Naval Bureau of Ordnance, in his annual report for 1909, tells us that a 12-inch 50-calibre gun of new design has been completed and tested with results which show it to be at least the equal of any gun thus far proposed abroad. In proof this gun developed an initial velocity of 3,030 foot-seconds and a muzzle energy of 52,500 foot-tons. In five rounds, fired at 17,000 yards range, the dispersion was less than 100 yards. The *Arkansas* and *Wyoming* will carry twelve guns of this type, and it is believed that they will be the first ships in the world to mount guns of such power. A type gun of 14-inch calibre is nearing completion, and will be tested before the end of the calendar year. It will fire a projectile weighing 1,400 pounds with a velocity of 2,600 foot-seconds, representing a muzzle energy of 65,600 foot-tons. A mount for this gun has also been designed.

In the matter of powder there have been no radical changes during the year, nor are any such changes to be anticipated in the near future. Our present nitrocellulose powder has been brought to a degree of perfection which leaves comparatively little room for improvement. In connection with projectiles, certain improvements in form have resulted in a very material increase in range, with a corresponding increase in flatness of trajectory, in danger space, and, finally, in striking velocity and penetration at long ranges. During the year there has been a notable improvement in range-finders, and orders have been placed for an instrument of this type which is very greatly superior to any heretofore known.

The torpedo situation has improved during the past year, owing to the delivery of the torpedoes purchased abroad and the delivery of a large number manufactured in this country. The delivery of torpedoes of domestic manufacture has been much more satisfactory during the past year than heretofore, and it is expected that the Navy will be well supplied with torpedoes within two years.

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The work of modernising old material like the guns and mounts of battleships already more or less out of date, while less interesting than the preparation of new designs, is hardly less important, and necessarily engages a large amount of the bureau's attention. Among the items of this nature which have been in progress during the year, the most important is the relining and strengthening of the 12-inch guns of the battleships up to and including the *Virginia* class. Other changes are noted. Attention is called to the necessity of ammunition ships, which is felt in times of peace as well as in war. The torpedo factory authorised by Congress last year has now been established at the Torpedo Station, Newport, R.I., and the manufacture of torpedoes has commenced.

The bureau expresses its gratification at the remarkable results which have been obtained in target practice with material which, in many cases, was designed before anyone could have predicted the demands which would be made upon it as a result of the unprecedented development in target practice within the last few years. A plan for new and improved sight-setting arrangements has been worked out in the drafting room, and an item to add these improvements to all turret sights in service is included in the estimates.

The reserve supply of powder has been added to, although this reserve still remains inadequate. The situation, however, has improved since the last annual report. In time of war the government plants, in spite of all the enlargement which could reasonably be made, would be altogether inadequate. These are sufficient reasons why private sources of supply should be fostered and the Government assured an unfailing supply of powder in case of emergency. Successful experiments in the refrigeration of magazines have been conducted, and our newest ships will be fitted with complete cooling arrangements. The magazines of older ships will be similarly fitted as opportunity offers. A simple and efficient method has been developed for testing the stability of smokeless powder on ship board, and testing outfits will be issued to the Service as fast as they can be manufactured. Experiments are now in progress with a new form of smokeless powder, up to the present time with fair results.

A change has been made in the rotation band for projectiles which is expected to considerably prolong the life of the gun by insuring a true flight for the projectiles after the gun is so much worn that its accuracy with the older bands would have been much impaired. Satisfactory designs of primers have been developed by means of extensive experiments.

Ninety-five mines of a new type have been delivered. An appropriation is asked for to carry out the plans prepared for a new torpedo station on the Pacific coast. The friction training gear installed on the 5-inch and 6-inch mounts has proved satisfactory, the work of modernising 4-inch 40-calibre mounts and providing them with new telescopic yoke sights has been nearly completed, and the work of modernising 5-inch 40-calibre mounts and providing them with new sights will probably be completed this year. The latest type sights and telescopes in service have proved generally satisfactory. The disposition in the Service toward more intelligent care and more considerate handling of ordnance material has been very gratifying, and, combined with improvements in various parts of the material itself, has resulted in comparatively few casualties during target practice. Storage batteries have been substituted for the

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dry cells heretofore used for gun firing and sight lighting on battleships and armoured cruisers.

The Report concludes with a detailed statement of ordnance work during the year. The class for instruction of young officers in ordnance has been re-established.—*Army and Navy Journal*.

MILITARY NOTES

The following are the principal appointments which have been made:—Major-Generals—H. M. Lawson, C.B., to command 2nd Division (Aldershot Command); F. S. Robb, C.B., M.V.O., to charge of Administration (Aldershot Command); Major-General (Hon.) W. de Wilton R. Thackwell, C.B., to be Colonel of the Dorsetshire Regiment. Colonel—N. W. Barnardiston, M.V.O., to be a General Staff Officer, 1st Grade, at the War Office.

Indian Army.—Colonel Sir W. H. Manning, K.C.M.G., C.B., to be Commissioner and Commander-in-Chief of the Somaliland Protectorate with temporary rank of Brigadier-General.

Extracts from the Report of Major-General Sir D. Haig, K.C.V.O., C.B., on the Cavalry Divisional Training, 1909.—Part III.: Comments on the Conduct of the Operations.—The following is a summary of the more important points noticed:—

(i.) Leadership.

21. The importance of constant practice in the execution of tactical problems, with actual troops to handle, against a marked or other enemy, does not appear yet to be fully realized. In order to train our leaders for war it has long been recognized that systematic training must be given in (1) correctly appreciating tactical situations; (2) coming to rapid decisions; (3) translating decisions into short cavalry orders, and up to this point instruction can be given satisfactorily at war games, staff rides, and tactical tours. But it is essential that instruction should not cease here, for the real test and value lies in the final stage, the *rapid, common-sense execution of these orders in the field*. Moreover, it is in the execution that the suitability or otherwise of the orders and the standard of training of units can be properly gauged. Brigade and divisional manœuvres, and the training of large, mixed forces last but for a short time, and offer to but few of the officers attending opportunities for practising themselves in dealing with concrete situations such as will face them in war. The point must be borne in mind and insisted on in troop, squadron, and regimental training all the year round.

Throughout all tactical operations, it is the task of the divisional commander to combine the efforts of his brigades and his horse artillery; that of each brigadier to combine his three regiments and his brigade machine-gun unit; that of each regimental commander to get the maximum

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co-operation between his three squadrons. The proper chain of responsibility must invariably be adhered to, i.e., brigadiers must deal with regiments, regimental commanders with squadron commanders, squadron commanders with troop commanders, and so forth. If, for instance, the brigadier endeavours directly to control squadrons, he will lose his grip of the situation as a whole. His work is cut out for him in dealing with his three regiments and machine guns, operating possibly over a very extended area.

Although mobility, rapidity, and surprise are fundamental factors in all cavalry tactics, these must not be confused with hurry and haste, i.e., lack of method and confusion. Important decisions have frequently to be made on the spur of the moment, but no commander should order any movement without a clear idea in his mind as to how that movement is to be carried out, even if there be no time to explain his intentions to other than his own immediate staff. The extent to which liberties can be taken in the rapid issue of a limited number of short orders without thereby forfeiting co-operation depends upon the degree of mutual understanding existing between the commander and his subordinates, and upon thorough agreement amongst all upon questions of tactical principles—and peace training must aim at developing this understanding and agreement.

(ii.) Reconnaissance and Protection.

22. More practice in reconnaissance is certainly needed by all ranks. The formation and action of patrols under varying conditions of ground and enemy calls for more thoughtful and methodical consideration.

The following principles were not always understood, and require to be thoroughly impressed upon all ranks:—

- (a.) Patrols should move well *concentrated* under the leader, and must, in their turn, send out the necessary scouts to provide for their own security.
- (b.) It did not appear to be understood that the principle of moving rapidly by *successive bounds*, i.e., from position to position, or point to point, and halting at each whilst the next is reconnoitred, applies to patrols and scouts as well as to larger bodies. Patrols may halt as long as necessary behind the crest of a ridge or under cover, but when once they move on they should do so at a rapid pace, having first clearly decided in their own minds which is the next position they are going to. As a rule, the more open the ground the faster they should move.
- (c.) Patrols and scouts employed for protection should proceed to certain *definite points*, or localities, where the enemy may be concealed, e.g., woods, villages, folds in the ground. It is useless for them to wander aimlessly along at a fixed distance in front of the force they are protecting; they must precede it at a sufficient distance to prevent it from being surprised by fire at effective range. In spite of these principles being clearly laid down in our regulations, scouts were often noticed meandering at a walk over open ground, with apparently

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no objective, towards a hill behind which an enemy lay concealed; or riding not more than 40 or 50 yards from the troops they were supposed to be covering.

- (d.) Scouts sent out to examine a particular locality should return to the body from which they are sent *as soon as their mission is finished*, unless otherwise directed. Unless this principle is strictly insisted upon the members of a patrol soon become hopelessly scattered, and method and unity of purpose vanish, each individual becoming engrossed in minor enterprises of his own making.

- (e.) A tendency still exists on the part of patrols and small detachments to resort to dismounted action on perfectly open and exposed ground, thereby delaying their reconnaissance work and placing themselves at the mercy of any superior body of mounted troops who may gallop down on them. (See Cavalry Training, page 187, lines 22-24.) Again, reconnoitring patrols frequently dismount to climb to the top of a hill when it would be quicker and safer to remain mounted and look over the shoulder of the hill.

23. The rôle of contact squadrons (Field Service Regulations, Part I., Sections 91-93), did not always appear to be fully understood, and the results obtained were not altogether satisfactory.

Schemes involving reconnaissance work over a wide area of country and lasting for several days on end must be more frequently undertaken in order to develop and practise a *methodical system* of (a) acquiring information and (b) rapidly transmitting that information to all concerned.

The former, the acquisition of information, depends only to a limited extent upon the skill of the individual scout or patrol leader: success depends upon other factors also, such as the decision as to how many reconnoitring detachments to employ (always the least possible for the end in view), in what directions and of what strength, upon the nature and detail of the instructions given, and often upon the extent to which their tasks are facilitated by supporting detachments (contact troops or squadrons), or by the movements of the main body itself. Time spent in elaborating a definite and combined scheme of reconnaissance and in fully instructing all concerned as to its execution will seldom be time wasted.

24. Similarly, the *transmission of information* from the scout who actually acquires it to (a) other reconnoitring detachments with whom he may be working in co-operation, (b) to his main body, and (c) thence to the army commander and to commanders of neighbouring columns, depends upon a methodical system, the responsibility of maintaining which must be shared by the reconnoitring detachment, and by the authority which sends it out. The acquisition of information is often a simple problem compared with this difficulty of transmitting it rapidly back to headquarters; leaders of patrols and contact squadrons should bear the point in mind during their advance, and should try to provide against any risk of messengers failing to return. It is often necessary to fight in order to take valuable information rapidly to the rear (Field Service Regulations, Part I., Section 9 (3)). and in some cases it may be necessary

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to employ units of considerable strength for the purpose of ensuring its safe transmission.

25. Although the onus of getting information back to the commander lies, as a rule, upon the detachments, yet it is the duty of the former to lighten their task in every possible way. He may often, as indicated in Field Service Regulations, paragraphs 91—93, find it advisable to send out a connecting detachment to hold out a hand, as it were, to patrols in front.

26. The transmission of information by *dismounted* men when a mounted man cannot escape detection should be more frequently practised.

27. Omission to note the *time and place of despatch* frequently rendered useless what might otherwise have been valuable information. Patrol commanders should remember that the headquarters staff of a large body of troops can rarely know what actual detachments are out in front, so that a message merely signed by the sender might, as far as the recipient knows, come from any point in the field. In this connection the desirability of reintroducing the printed headings in our official message books is a point for consideration, in order to jog the memory of those who forget at manoeuvres and are even more likely to forget in war.

28. The *names* of at least the divisional and brigade commanders should certainly be known by every man in the ranks.

29. *The system of security* was on several occasions retained too near to the body covered, having regard to the increased range of modern firearms, with, in some cases, somewhat disastrous results. Excepting when circumstances justify abnormal risk being taken the tendency to neglect the regulation methods of providing for security, in order to avoid delay thereby involved, must be checked.

30. The importance of protecting columns moving *along roads and through enclosed country* by picqueting all approaches from the flanks was not always realised; the tactical value of all neighbouring cross roads in these circumstances should be borne in mind. Compare the system of picqueting the flanks in mountain warfare. It should be recognized that the normal rate of progress for any body of greater strength than about one regiment must be reduced in enclosed country when in the vicinity of the enemy, if its safety is to be assured.

(iii.) Intercommunication.

31. The principles so clearly laid down in Field Service Regulations, Part I., were not always carried out to the full, with the result that on frequent occasions the higher commanders lost control of their units and co-operation suffered. The problem of intercommunication is always a difficult one, requiring forethought and methodical working. Breakdowns are usually due to lack of care in selecting the method of transmission, failure to send important messages by more than one method or route, too frequent changes of the central receiving post, or actual defect in the mechanical apparatus, such as wireless.

Although the responsibility for keeping superiors informed of the progress of events rests primarily upon subordinates (Field Service Regulations, Part I., Section 8, paragraph 2), success or failure will very largely

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depend upon the *clearness of instructions* issued by the former and upon the maintenance of a good *methodical system for the reception of messages*. Again, the responsibility for the dissemination of information regarding the general situation and objective of the commander rests upon the latter's staff; and the better subordinates are kept acquainted with the situation the better will be their co-operation and the more relevant their reports. There must, however, be mutual co-operation in this respect, i.e., it is not sufficient only to pass orders or instructions downwards, but subordinates must, when necessary or advantageous, pass their requirements upwards.

32. As often before, these operations proved the limited amount of reliance which can be placed upon *visual signalling* for cavalry work, owing to the time it takes and the frequency with which it is rendered useless by bad weather. It is to be hoped that the new acetylene lamps, which it is understood are to be tried, and which are said to be able to signal many miles by day and night, may effect an improvement.

33. The present system of coding signalling messages is too elaborate for rapid cavalry work in the field, and it is suggested that an abbreviated system be devised, at any rate for use on emergency. Place, time, &c., of the original messages were apt to get confused in the course of transmission with similar items connected with the working of the signalling stations; the latter ought to be quite distinct from the text.

34. The necessity for *tactical training of signallers* requires emphasizing. The test of efficiency should not depend only on the technical skill of the men but also on the ability of those in command of the signalling detachments (officers and non-commissioned officers) to make the best practical use of the means at their disposal to establish and maintain the communication required. Signallers should be practised more frequently in an extended scheme over a wide area of country; "tactical rides" for cavalry signallers are valuable, and easily and cheaply arranged.

(iv.) *Cohesion; Pace and March Discipline.*

35. In order to obtain good order and cohesion at the point of attack, commanders must adjust their frontages proportionately to their strengths, so that there shall always be a rear rank available to fill up intervals in the front line. When there are less than 24 men in a troop it should be formed on a 13 file front. Troop and squadron leaders have to keep their eyes to the front so that it becomes the special business of the serrefiles to supervise the maintenance of good order and cohesion in the ranks, and, during the advance to the attack, to see that men in the rear rank fill up immediately any gaps which occur in the front rank.

36. The principles laid down in Section 143, Cavalry Training, 1907, require more constant consideration. Good order and cohesion can only be maintained if the regulation paces are strictly adhered to. The process of making any body of cavalry efficient in preserving continuity and uniformity of pace is certainly tedious, but failing these two requisites, the best fighting value of the arm will not be obtained. Manœuvring does not consist only of correct and rapid drill evolutions. The situation will often involve winding cautiously through difficult ground, climbing steep hills, &c., and then deploying over broken and uneven surfaces. Uniformity in the pace of manœuvre throughout brigades is essential.

Officers and troop leaders should be more frequently practised in timing the pace of their horses with a stop watch over a measured distance. The larger the body of troops and the longer the column, the more important is correctness in pace. During changes of direction or formation the leading units must steady the pace and so assist the units in rear.

The fast paces are always extravagant in horse power, and a tendency which now exists to gallop prematurely or without sufficient justification should be checked. Galloping by large bodies can be rarely necessary for other than two main reasons: (a.) when advancing under fire, in which case every opportunity should be taken of available cover *en route* to re-form ranks and ease the horses; or (b.) to effect surprise. In normal circumstances the more rarely a steady trot is exceeded the longer will mobility and rapidity as a whole be maintained. Trotting faster than the regulation pace should very rarely be permitted; if any increase of pace is required the gallop should be ordered.

37. The rapid *passage of obstacles* in good order unit by unit, requires constant practice, and the following principles must be more carefully observed: (a) that it is almost invariably better with a force of greater size than a squadron to steady the pace and keep well closed up, rather than increase the pace and so risk disorder, and (b) that in crossing a defile each squadron should pass the defile at a trot, and re-form as quickly as possible as soon as its rear is clear; any distance lost from the leading body should be made up by moving at a gallop after the squadron has re-formed.

33. March discipline requires to be more strictly maintained amongst all units, especially as regards transport. Civilian drivers must be taught the necessity of maintaining the strictest military discipline, and to understand the importance of keeping closed up and leaving one side of the road clear.

More practice in marching, especially on the roads, by night as well as by day, is required; on several occasions there were noticed those concertina-like movements in columns which are so distressing to men and horses, and which, in the presence of an enemy, might easily cause an operation to miscarry.

(v.) *The Attack.*

39. The rôle of cavalry in co-operation with the other arms on the battlefield (Cavalry Training, Sections 156 to 162) requires more attention.

The magnetic influence of the opposing cavalry is apt to override more important considerations and to lead to engagements on other than vital issues. When the crisis of the decisive battle arrives, cavalry should be operating in close combination with those troops which are striking the decisive blow, and be ready to exploit and prolong the effect of that blow, which cannot usually be achieved if the cavalry is far away on a flank or endeavouring to work round to some distance in the enemy's rear. In order to train cavalry to act effectively in such situations, more time should be devoted to problems such as the methodical selection and occupation of positions of readiness in the vicinity of attacking infantry; selection of covered lines of advance, by which movements can be made, concentrated or unit by unit, towards more advanced positions; rapid deployments and attacks mounted upon guns or extended lines of infantry, always

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under a scheme involving a tactical idea; the "rally" beyond and out of range of the fire of the enemy thus attacked; followed by a second attack, probably from or in another direction, or by a movement in pursuit, or by a return under cover to the point from which the attack was originally launched. A definite plan, a methodical arrangement of means to ensure combination of effort, and other essential factors of success are sometimes forgotten in these problems.

The principle of advancing at the fastest pace whilst under fire, but of periodically steadying the pace, or even halting, in any available cover does not appear to be fully understood. In crossing slopes or crest lines exposed to fire it may often be advantageous to do so unit by unit at an increased pace, each unit opening out if necessary, galloping rapidly over the exposed ground and halting under cover beyond until the regiment or other body has been re-formed.

This method of advance is quite distinct from that required when not under fire and advancing to attack cavalry mounted. In the latter case, unless there is a possibility of surprising the enemy, the longer a steady trot can be maintained the better, and in any case the charge should only be taken up at the most 50 yards from the enemy, for in the cavalry encounter cohesion is of more importance than pace.

(vi.) Dismounted Action.

40. The principles which should determine the choice between mounted and dismounted action require to be more thoughtfully considered. Small units have been seen on several occasions to dismount on open ground, when mounted action was the only sound course to adopt. On the other hand, squadrons have been seen to remain mounted in enclosed country, when under fire at close range of dismounted men.

Officers appear to have hardly yet realized the *essential difference in the principles* which should govern the attack by cavalry dismounted from those on which an infantry attack is conducted. Weight and depth are essential in the infantry attack, fire being employed to facilitate movement in the direction of the enemy with the ultimate object of coming to close quarters with the bayonet. Cavalry, on the other hand, normally develop shock action effectively only when mounted, and usually lack the numbers, depth and weight required to act decisively on foot. They must, therefore, as a rule, put the largest available number of rifles in the firing line at the outset, endeavour to retain their mobility throughout, by keeping their horses as close to the firing line as possible, and make the most of it by opening sudden bursts of fire of the greatest possible intensity from unexpected positions.

Different portions of the attack should push forward in turn, taking as much advantage of the ground as they can, covered by bursts of fire from adjoining bodies. Intimate co-operation of this nature can be secured only by a well-organized system of intercommunication, mutual understanding, and skilful use of the ground.

Fire should be concentrated on successive portions of the target—a desultory fire disseminated over a wide front is of little value, and decisive results will be obtained only by sudden outbursts of fire concentrated on definite objects. In order to retain mobility, the horses must be as close up to the firing line as possible.

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A mounted reserve must always be at hand to guard against the unforeseen, and to take instant advantage of favourable opportunities for decisive action, i.e., mounted attack, created by the fire of those dismounted.

(vii.) Co-operation of Horse Artillery with Cavalry.

The soundness of the principle enunciated in Field Artillery Training, Section 87 (iii.), paragraph 3, was fully confirmed. Horse artillery must not be tempted by the chance of gaining a temporary and unimportant advantage, to advance prematurely into action. Such tactics offer the enemy an opportunity of immobilizing the guns thus prematurely deployed with a fraction of their artillery or machine guns, whilst the hostile cavalry and the remainder of their artillery are at liberty to manœuvre in another direction out of the zone of their adversary's fire.

The most propitious moment for the deployment of all the horse artillery in action is when the cavalry have completed all their preparations and are ready to deliver the attack. Till then the guns should be held back in positions of readiness so as not to disclose their presence to the enemy until the latter has finally committed himself and lost his power to manœuvre beyond the zone of their fire.

During an advance, prior to attack, across undulating country with well marked ridges, it is often advisable to divide the guns, leaving one portion behind in readiness for action whilst the cavalry, accompanied by the remaining guns, makes good the next ridge. For if all the guns are left behind, the cavalry after reaching the next ridge, are temporarily without artillery support; whilst if all the guns accompany the cavalry the encounter may take place before any of the former can come into action.

When the ground is comparatively level and there are no covered approaches by which the hostile cavalry can gain access to the flank of our own cavalry, it is advisable to keep the whole of the horse artillery and machine guns on one flank. When the two latter eventually come into action, their lines of fire will then be approximately parallel, while the cavalry is free to manœuvre without fear of masking this fire. On the other hand, if the ground is undulating with high ridges and deep hollows, it is sometimes advantageous to place guns on each flank so as to deny to the hostile cavalry these approaches.

The placing of the horse artillery in the centre of the cavalry is not recommended. In such a position their fire is generally masked at the most critical period of the encounter. A more suitable position is in echelon well forward on a flank, as laid down in Field Artillery Training, Section 87 (iv.). Placed thus, there is less liability of their fire being masked, and with their outer flank secured by patrols they are sufficiently in touch with the cavalry to dispense with a special escort.

The question sometimes arises, when other considerations are equally balanced, whether the cavalry or the guns should move rapidly out to a flank. In such cases it is the guns which should be sent. Once in action, their horses have time to recover their wind, while, on the other hand, it is of vital importance that the cavalry horses should be kept as fresh as possible for the charge.

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When in action the flanks of the guns and any dead ground in front are best protected by machine guns, or, if none are available, a section of horse artillery or even a single gun can be used for the purpose.

(viii.) The "Rally." Replacement of Casualties.

41. The "rally" after an action, mounted or dismounted, and against an enemy mounted or dismounted, requires careful thinking out and constant practice. During peace training, operations are rarely worked out to a logical conclusion, and too often cease with a final charge; so that the problem is not faced of what is to happen *after* the enemy has been routed, or the position captured or galloped through; or again, what is to happen should the attack fail.

42. Similarly, practice is necessary in the rapid assumption of command after casualties amongst leaders. If casualties amongst leaders were more frequently practised the overwhelming importance of method and system in the conduct of all operations would be better realized. The practice of casualties also tends to bring home to all ranks the necessity to maintain reserves.

(ix.) Overloading of horses.

43. A regrettable tendency has been observed to overload horses, contrary to regulations. Men were often seen carrying line gear, mallets, axes, waterproof sheets, and buckets. This is a matter of discipline, and the regulations embodied in the Field Service Manual should be rigidly enforced.

(x.) Officers.

44. The material is excellent. All four brigadiers and their staff officers are able cavalry leaders, in whom I have every confidence. I think that between them, myself and my own staff there existed that sympathy, confidence and mutual understanding which is the basis of success in any cavalry operation. Their efforts have been well seconded by the loyal support of the regimental commanders, the energy and zeal of the squadron officers, and the cheery endurance of the men.

45. I have been particularly struck by the keenness displayed by many of the young officers, who do not hesitate to gallop their horses to a standstill in order to bring in important information in good time. This recalls the important question of *officers' chargers*, and the necessity for their being mounted on suitable horses and in adequate numbers. At present we do not compare favourably in this respect with the French and German Cavalry, and it is hardly necessary to point out what false economy this must prove.

Unless a cavalry officer is a good horseman he is useless; cavalry officers must therefore be constantly in the saddle, and should be encouraged to ride at least several hours a day throughout the year.

I attribute great importance to young officers being encouraged to hunt and play polo, and would urge that they should be helped to do so in every possible way. These pursuits have a very *real value as training for war*, and it is particularly desirable that officers with private

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means should be encouraged to spend their money in this way rather than in buying expensive motor cars and similar luxuries which have a precisely opposite tendency.

(xi.) Non-commissioned officers and men.

46. It is gratifying to see the improvement both as regards class and intelligence that is apparent in the non-commissioned officers and men. The ranks of our cavalry are now filled by men who, although somewhat younger, will bear comparison with the pick of continental armies.

(xii.) Royal Horse Artillery.

47. The intelligent co-operation of the horse artillery in all the operations of the division has been a very satisfactory feature, and reflects great credit on Colonel Fanshawe, who acted as my C.R.A. I think we have proved that what is perhaps the most difficult problem in war, viz., the well-timed co-operation of guns and cavalry, is a practical proposition, which can be solved by mutual understanding and adherence to sound principles.

(xiii.) Billeting.

48. The weather on most days during the training was abominable. Fortunately little sickness occurred amongst the men, but, although cheerfully endured, the discomfort was very great, and the loss of condition amongst the horses was due far more to this than to the amount of work imposed upon them. Kits and equipment also suffered considerably.

In this connection I would urge the importance of introducing, gradually perhaps, some system of billeting the troops during manœuvres. Considerable expense would be saved to the State, and, judging from the large experience of our continental neighbours, the system would not be nearly so repugnant to the civilian population as is generally supposed to be the case. Even bad billets secure greater comfort to the troops than a night in the open, and give them, moreover, opportunities of putting their weapons, equipment, and clothing in order. In the case of mounted troops especially any kind of shelter is preferable to none at all.

Should our army ever be called upon to operate in a civilized theatre of war, billeting will certainly be resorted to. It is, therefore, of great importance that commanders, staffs, and troops should annually obtain actual practice in all the arrangements connected with this duty. The matter is a much more difficult one than is generally realised, and involves numerous problems of time, space, capacity, allotment, subsistence, inter-communication, sanitation, &c. Billeting, in fact, is an operation which can no more be learnt by theory only than can any other operation of war.

New Hungarian Minister of National Defence.—By a Royal Decree of 17th January, 1910, Major-General Hazay has been appointed Hungarian Minister of National Defence in succession to General Jekelfalussy. The new Minister was born in 1851.

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and he is one of the very few officers of the General Staff who have passed their whole service in the Honvéd. He joined the War School in 1879, and in 1904 was appointed Director of Studies for Officers of the General Staff, and he enjoys a high reputation as a writer on military subjects.

Modifications in the Position of the Chief of the General Staff.—It is reported that some modification is to be made in the position of the Chief of the General Staff.

At present that officer is under the direct orders of the Emperor, and responsible personally to him for the war preparations; but he is also one of the Assistants of the Minister of War. This duality of functions entails certain inconveniences—inconveniences that Germany, for example, has known how to avoid by withdrawing the work in the hands of the Chief of the General Staff from the interference of the Minister of War.

In Austria the duties of the Chief of the General Staff are concerned with both the Common Army and the *Landwehrs*; he thus has to assist the Ministers of Defence of both Austria and Hungary. It is this complicated position which is now to be modified. The Chief of the General Staff will no longer act as one of the Assistants of the Minister of War, but will be in all circumstances directly under the orders of the Head of the Army.

Creation of a Brigade of Troops of Communication.—Owing to the increasing importance of the service of communications due to the progress of science, it has become necessary to concentrate it in the hands of one control. The Minister of War has, therefore, created a brigade of troops of communication, which is composed of the regiment of railway sappers and of the telegraphists, the balloon establishments, the automobile cadres, and to which is also attached the infantry and cavalry telegraphy course.

The brigade, whose headquarters are at Vienna, is attached for disciplinary purposes to the IInd Army Corps, but otherwise receives its orders direct from the Ministry of War. For administrative purposes the balloon establishment is still attached to the 1st Regiment of fortress artillery.

The Spring Movement of Troops.—In the coming spring will take place the usual garrison changes, and without entering into detail it may be useful to point out the principal modifications which will take place in the grouping of the military forces of the Dual Monarchy.

Generally speaking, these movements are only transfers or exchanges. The garrisons which lose one unit receiving another in exchange. There will be no movement on so large a scale as that which marked the spring of 1905 and following years, when one frontier was denuded in order to strengthen another and for the creation of new garrisons. Moreover, the changes carried out are for the most part regulated in accordance with the principle of Territorial Distribution, which is an essential element to ensure rapidity of mobilisation.

1. In spite of rumours to the contrary, the effectives *échelonné* along the Italian frontier have not been sensibly increased. The distribution of the Innsprück and Grätz Corps remains the same. The town of Trento alone receives an additional battalion of Jägers taken from Budveiss, one of the Bohemian garrisons.

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2. On the Russian frontier there has been a more important increase in the 1st Corps (Cracow) and the IInd Corps (Lemberg). The Cracow garrison has been strengthened by a part of the 93rd Regiment of Infantry (the headquarter staff, a machine gun section, and two battalions), which have come from Olmütz and Jägerndorf. The Lemberg garrison has been increased by a battalion drawn from the XVth Corps at Banjaluka.

3. But it is on the frontiers of the Danube and the Save that the most important modifications have taken place. In the IVth Corps, Semlin, where, up to the present, only one battalion has been quartered, becomes one of the strong garrisons of the southern part of the Monarchy with the headquarters of the 14th Infantry Brigade, up to the present quartered at Péterwardein, as well as the headquarters, a machine gun section, and three battalions of the 68th Regiment of Infantry, which are leaving Buda-Pesth.

In the XIIIth Corps, Mitrovitz, where up to the present only cavalry have been quartered, now receives infantry, the 31st Battalion of Foot Jägers coming from Agram.

Finally, the infantry battalions in garrison in the towns on the Austro-Servian frontier, are for the most part being replaced by battalions of Foot-Jägers, as at Pancsova (VIIth Corps) and Temeskubin (XIIth Corps). These Jäger battalions in effect not being attached to a regiment, can render, in the event of hostilities, from the very beginning the greatest service as scouts.

4. In the annexed provinces of Bosnia-Herzegovina, the changes are marked by the fact that the two last remaining regiments (the 54th and 82nd) are being withdrawn from this territory. Thus, in the XVth Corps (lately formed at Mostar), the headquarters and two battalions of the 54th leave Serajevo for Olmütz (1st Corps), and in the XVIth Corps, the headquarters and two battalions leave Mostar for Vienna. In the annexed provinces there only remain now detached battalions in place of complete regiments.—*Revue Militaire des Armées Etrangères.*

A Course of Instruction for Medical Officers.—An Imperial Decree of the 14th August, 1909, institutes at the Military Medical School of Application a ten week's course of instruction for the regimental doctors recommended for promotion.

This course is placed under the supreme direction of the Medical Head of the Army and under the direct authority of the Commandant of the School.

The instructing staff consists of a field officer of the General Staff and five superior officers of the medical service in garrison at Vienna.

The programme of instruction embraces hygiene and military surgery, the working of the Medical Service in time of peace and in time of war, the recruiting for the army and the rejection of the unfit, the medical service from the tactical and operative point of view, as well as the organisation of the army in the field. In addition, lectures will be delivered at the above-named school on the history of the medical service of the army and on the medical organisation in foreign armies.

The officers attending the course will, moreover, visit certain medical establishments, and will take part in practical training with the field hospital matériel.

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At the end of the course, a Commission composed of the Medical Head of the Army, the Commandant of the School, and some of the Professors, will report on the qualification and theoretical and practical knowledge of the Students.

In addition, the *Fremdenblatt* reports that an eleven days' course of instruction for doctors of field officers' rank (*Stabsärzte*), is to be instituted at the camp of Brück, with the object of developing the theoretical and practical knowledge acquired by these superior medical officers, in all that concerns the field hospital equipment and its employment on the battlefield. This course will also be superintended by the Commandant of the Medical School, assisted by a field officer of the General Staff.—*Bulletin de la Presse et de la Bibliographie Militaires.*

Last autumn a new Act was passed by the Chambers, **Denmark.** regulating the military organisation, of which the following is a *résumé* :—

Organisation of the Army and Recruiting.—As at present, the army will consist of two Army Corps. It will receive :

8,000	recruits in the Infantry for 165 days;
272	" " " Guard for 150 days;
380	" " " Cavalry for 200 days;
270	" " " Train for 60 days;
792	" " " Field Artillery for a year (Drivers), or 280 days (Gunnery);
800	" " " Coast Artillery for a year;
300	" " " Engineers for 210 days;
60	" " " Technical Service for 18 months;
50	" " " Commissariat for 125 days;
120	" " " Hospital Department for 230 days.

Organisation of the Different Arms.

Infantry.—2 brigades of 2 mixed regiments, each regiment to consist of 2 Line battalions and 2 Reserve;
5 Regiments of the Line of 4 battalions;
1 Regiment of the Line of 2 battalions;
The Guard (1 active battalion and 1 Reserve);
3 Reserve regiments of 4 battalions.

In all, 52 battalions (31 of the Line and 21 Reserve), in place of 44 battalions. Each battalion to have four companies.

Cavalry.—2 regiments of the Line of 3 squadrons each;
2 mixed regiments of 2 squadrons of the Line and 1 Reserve.

In all, 12 squadrons, in place of 15.

Field Artillery.—2 regiments of 2 groups each;
2 independent groups.

The groups consist of 4 batteries; in all, 24 batteries in place of 16.

Denmark.

Coast Artillery.—12 batteries of the Line;

6 Reserve batteries.

In all, 18 batteries, as at present.

Engineers.—1 regiment of 10 companies of the Line;

2 Directions.

In all, 12 companies in place of 9.

Fortifications.—As regards the fortifications, the Lower Chamber refused to vote the money for a line of advanced defensive positions for the capital. The old land fortifications are to remain till 1922. The Chamber voted:—

Kronen.

For the sea front ... 11 million (£604,395)

For the defence of the coasts of Zealand
and the bases for the fleet ... 5 " (£274,725)

For torpedo boats and submarines ... 6 " (£329,670)

For military buildings, manœuvre
grounds and stores ... 9 " (£494,505)

As the result of the solution adopted for National Defence, General Lütken, commanding the Zealand Army Corps, has sent in his resignation. His place has been filled by General Görtz, who obtains the highest military appointment in Denmark at the age of 57.—*Revue Militaire des Armées Etrangères.*

Brigade Manœuvres in the XIVth Army Corps.—In conformity with Orders issued by the Minister of War, the 53rd 54th, 55th, and 56th Brigades, forming the XIVth Army Corps, will carry out manœuvres in the autumn as follows:—

53rd Brigade.—The manœuvres of this Brigade will take place in the mountains, under the direction of General Courbebaïsse, commanding the 27th Infantry Division.

The *West* force will be under the orders of General Bunoust, commanding the 53rd Infantry Brigade, and the *East* force under the orders of General Bonamy, Governor of Briançon. The scene of the manœuvres will be the Oisans country, the Col du Lautaret, the Col du Galibier, and La Valloirette.

The reservists will be called out from the 22nd August to the 13th September.

54th Brigade.—The manœuvres of this Brigade will be carried out under the direction of General Leclerc, commanding the brigade, in the Lyons-Montélimar country; they will last for six days, exclusive of the concentration and returning of the troops. The *West* side will concentrate at Montélimar and its environs; the *East* force to the west of Lyons.

The concentration of the 14th and 30th Battalions of Chasseurs will take place for the Alpine manœuvres, and the manœuvres of the Mont-Dauphin and Saint-Vincent detachments between these localities and Gap at the time of the annual relief. The Reservists will be called out from the 22nd August to the 13th September. Those of the 17th Regiment of Infantry will march to the point of concentration with their unit;

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those of the 14th and 30th Battalions of Chasseurs will join their corps on the 31st August by rail. At the end of the manœuvres the Reservists will be returned by rail to their garrisons, previous to dismissal, entraining on the 11th September.

55th Brigade.—The manœuvres of the 55th Brigade will be carried out under the direction of General Soyer, commanding the 28th Infantry Division in the country of the Usces and the Fier; they will last seven days, exclusive of the days necessary for the concentration and return of the troops. The general commanding the regional brigade will command the *West* force. The 11th and 22nd Chasseur battalions will take part in the Alpine manœuvres. The Reservists will be called out from the 29th August to the 20th September. Those of the Zouaves and 99th Infantry Regiment will move to the place of concentration with their units, the 99th being transported by rail on the 7th September from Vienne to Leyment; those of the 157th and 158th Regiments of Infantry will also proceed on the 7th September by rail from Lyons to La Tour-du-Pin, and will encamp the same day with their battalions. At the end of the manœuvres the Reservists will be entrained on the 18th September for their garrisons.

56th Brigade.—The manœuvres of the 56th Brigade will take place under the direction of General Massiet Du Biest, commanding the Brigade, and will take place in the Brezins, Rive, Virien and Champier region. Like the others, they will last seven complete days.

The *East* force will be concentrated towards Apprien, the *West* towards Marcilloles-Chambaran. The 13th Chasseur Battalion will concentrate for the Alpine manœuvres. The Reservists will be called out from the 29th August to the 20th September, being entrained on the 18th September for return to their garrisons.

Mounted Infantry Scouts.—The 53rd and 55th Brigades, as well as the provisional regional regiment, will be provided with mounted infantry scouts as follows :—

- 4 non-commissioned officers and 8 men per regiment of infantry;
- 2 non-commissioned officers and 3 men per battalion of Chasseurs;
- 3 non-commissioned officers and 5 men to the regional regiment.

The reservist scouts of the 28th Division and of the regional regiment will be called out on the 29th August, those of the 27th Division on the 22nd August.

It may be noted that the Headquarters of the XIVth Army Corps are at Lyons, and the departments of the Army Corps region are: the Hautes-Alpes, Drôme, Isère, Savoie, Haute-Savoie, Basses-Alpes (cantons of Saint-Paul, Barcelonnette and of the Lauzet), with the cantons of Givoe, Saint-Genis, Laval and Villeurbanne.—*La France Militaire.*

Medical Statistics in 1907.—The Report of the Medical statistics of the French Home Army, which has recently been published for the year 1907, is based on a total effective of 498,934 officers, non-commissioned officers, and men, and on a present effective of 436,240 of all categories.

The total number of men treated in their quarters was 596,321, representing a proportion of 1,419 per thousand of the men present.

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200,886, that is 478 per thousand of the effective present, were treated in the regimental infirmaries, and 154,631, that is 269 per thousand, were sent to hospital.

The officers' general sick rate was 50 per thousand; that of the non-commissioned officers, 134 per thousand; of soldiers with more than one year's service, 244 per thousand, and of those with less than one year's service 369 per thousand.

The death rate rose to 1,958, that is 3.92 per thousand, as against 3.21 per thousand in 1904, 3.14 per thousand in 1905, and 3.52 in 1906.

Mobilisation of Two Batteries and an Ammunition Section.—By virtue of Article 103 in the Army Estimates for the present year, the Minister of War is authorised, during the forthcoming Autumn Manœuvres, to place on a war footing by means of requisitioned horses two batteries of artillery and an ammunition section.

The number of days for which the horses will be requisitioned will be 10 at the outside, and the requisition will be limited to a certain zone of the mobilisation region.

The requisition will be preceded by a detailed examination of the horse made in presence of the owner, who will receive a daily sum for the hire of 12 francs, independently of allowance for wear and tear during the time for which the animal has been taken.

There will also be requisitioned over all the district in question the necessary means of transport for the Gendarmerie, so that the prompt transmission of the orders relative to this experimental mobilisation may be assured.

The Minister of War is authorised to call, in the zones selected for the requisition of horses, for the transmission of the horses required from the centres of requisition to the garrisons of the units to be placed on a war footing and also of the men who will be necessary, selected from among those told off for this service in case of mobilisation. The call for these men will at first be from those of the youngest classes.

The reservists required to bring up to a war effective the units selected will be the men who are really told off for these units in the event of mobilisation. The time for which they will be called out will be uniformly 17 days for all the reservists who make up the units. If, among the men called out, there are any who have already completed their two periods of instruction in the reserve, these men will be excused from the period that they must still put in in the Territorial Army.—*Bulletin de la Presse et de la Bibliographie Militaires.*

Reorganisation of the Field Artillery.—The reorganisation of the field artillery on the 1st inst. entails the following changes:—In France, ten regimental staffs of field artillery will be created (one in each of the 8th, 14th, 16th, 18th, 19th, and two in each of the 6th and 7th brigades of artillery), and two regimental staffs of mountain artillery (one in each of the 14th and 15th Army Corps).

The effective of the mountain batteries, as well as that of the staffs of the old 40 regiments of artillery (regiments numbered from 1 to 40), will be modified.

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In Africa, five staffs of groups of field artillery and four African mountain batteries will be created (by the transformation of the existing mountain sections).

Apart from the organisation in batteries of the sections of African mountain artillery, no new unit has been created and there is no change in the nature or in the garrison of existing batteries.

According to a table published by the *Journal Officiel*, 27th December, 1909, there would be on the 1st inst. a total of 621 batteries, of which 569 are field batteries armed with the 75-mm. (2.9-inch) gun, of which 16 are stationed in Corsica and Africa; 18 field batteries armed with the 15.5-cm. (6-inch) gun; 18 mountain batteries, armed with the 65-mm. (2.6-inch) gun, of which 4 are in Africa, and 16 horse artillery batteries.—*Revue d'Artillerie*.

Germany. *Presentation of Colours by the Emperor.*—On New Year's Day the Emperor solemnly inaugurated the colours of the newly created third battalions of the infantry regiments, Nos. 165 and 171, and of the Pioneer battalion, No. 25. In addition to these troops, the 8th Bavarian Regiment of *Chevaux-légers* was the only unit created last year, and this regiment will receive its standard at Munich.

At these ceremonies of the dedication of colours, which are always imposing, the Emperor strictly conforms to the traditional ritual; it is he who drives in the first nail which fastens the flag to the staff; then follow the Princes present in turn, and the Generals of the highest rank, after which the Chaplain pronounces a benediction. We may record that all the units of the German Army are provided with colours or standards, with the exception of the Foot Artillery; the Pioneers have had their Colours since 1860, and the railway battalions since 1880. Up to 1900 the colours of the Field Artillery belonged equally to the Foot Artillery, but at that date they were attached exclusively to the first of these two arms. When the colour of a unit is too damaged for repair, this unit receives a new one in the year when it takes part in the Imperial Manœuvres; the colours receive for each campaign a commemorative banderole; for that of 1870, the Iron Cross was also distributed and fixed to the head of the staff. When a colour-bearer falls on the field of battle, a silver ring is fixed on the staff, on which is inscribed his name, the date, and the name of the action in which he fell. The colour of the 2nd Battalion of the Infantry Regiment No. 16 carries a special insignia; in 1870 it took part in the glorious day of Vionville, where it was shot almost to pieces; one of the fragments fell into the hands of the enemy, who carried it off as a trophy, and it is carefully preserved at the Hôtel des Invalides; the remaining fragments of the colour were found the next day under the bodies of the combatants, and they accompanied the battalion during all the rest of the campaign. To commemorate these events a new colour was presented to the battalion in 1872, bearing a silver knob and two rings, with the following inscription: "Mars-la-Tour, 16th August, 1870. In Memory of Lieutenant Schwartz and Sergeant André, two heroes, who fell with the Colours in their hands." The 2nd Battalion of the Regiment No. 61 also possesses a special mark of honour, which was presented with its new colour in 1871, replacing the colour which was gloriously lost on the 23rd January, 1871, at the assault on the Usine Bargo, near Dijon.

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It was discovered next day by a Garibaldian under a heap of bodies, and after many vicissitudes arrived at Paris, where it is preserved in the Church of the Hôtel des Invalides; it is the only German colour which was completely lost during the whole course of the war of 1870-71. In commemoration was fixed to the new colour the medal for the war of 1866 and the banderole of the old flag, which was recovered by the Germans from the field of battle.—*Revue Militaire Suisse*.

The Imperial Manœuvres of 1910.—According to the *Armee-Verordnungsblatt*, the Imperial Manœuvres will be between the 1st Army Corps (Königsberg) and the XVIIth Army Corps (Danzig).

The parade of the XVIIth Corps will take place at Danzig on the 27th August. As no suitable accommodation for the Kaiser and the Imperial Headquarters is available in the neighbourhood of that town, the Imperial yacht *Hohenzollern* will anchor in the harbour, and the Kaiser and his staff will partly reside on board her during the manœuvres.

The parade of the 1st Corps will take place at Königsberg, the Kaiser and staff taking up their quarters at the Castle of Königsberg. The Kaiser will return to Berlin to be present at the autumn parade of the Guard Corps. During this time, the preliminary manœuvres of the 1st and XVIIth Corps will take place. The brigade and divisional manœuvres of the XVIIth Corps will take place in the country about Elbing, Marienburg, Stuhm, Rosenberg and Marienwerder; those of the 1st Corps in the country about Heiligenberg, Braunsberg, Frauenburg and Preussisch-Holland. The Imperial Manœuvres themselves will take place between the 8th and 10th September, the operations being to the East of the Vistula, between that river and La Passarge.

Promotion of Officers.—The annual promotions made on the 27th January, the anniversary of the Kaiser's birthday, are interesting owing to the number of ante-dated commissions conferred, granted as a reward to a certain number of regimental officers, which will allow of their becoming under favourable conditions field officers and of rapidly reaching what the Germans call "*die Majorsecke*."

In the infantry 9 regimental captains have obtained commissions ante-dated from 1 to 4 years, and are transferred so that they shall be rapidly promoted by right of their new corps. These captains are from 37 to 41 years of age, and will probably become field officers before they are 42.

In the cavalry, 3 captains-commandants (*Rittmeister und Escadrons Chefs*) have obtained similarly commissions ante-dated from two to four years, and been transferred to other corps.

In the artillery, 5 captains-commandants (*Hauptleute und Batterie Chefs*) received commissions ante-dated from 3 to 4 years, and have similarly been transferred.

On the same occasion 153 ensigns (*Fähnriche*) were promoted to lieutenant. Out of this number, 57 received commissions ante-dated by two years, and 56 commissions ante-dated by eighteen months.

Germany.

The ante-dated commissions going principally to young men who have obtained a diploma of "Abiturient" (Bachelor's Degree), or to those who have attended the Universities, this last list of promotions is interesting by the large number of ante-dated commissions, and seems to mark a sensible advance in the general culture of the young German Ensigns. Moreover, the Ensigns (*Abiturienten*), obtaining their commission of officer when about twenty years of age, the commission ante-dated by two years really makes the commencement of their career as officers date from the time of their reaching 18 years of age, the minimum limit of age fixed for joining being 17 years.—*Revue Militaire des Armées Etrangères.*

New Cavalry Firing Regulations.—A new Firing Regulation for the cavalry was published on the 2nd December, 1909. It was at once put in force, and is of general interest, since it shows the great technical progress realised by the introduction of the new carbine (Model 1908, replacing that of 1880). The new Regulation further acquires a special significance from the great importance it attaches to dismounted fighting. The bullet of the new carbine possesses an initial velocity of 870 metres (in place of the 570 metres of the old weapon), which is as nearly as possible equal to the initial velocity of the bullet of the infantry rifle of the 1898 Model; this is a point of capital importance, because it allows the cavalry to fight infantry with a weapon the excellence of which is almost equal to the best infantry rifle at present in use. Its precision, its cone of dispersion, its danger area and penetrating force are very remarkable, and will allow the cavalry to carry out all the tasks which will be confided to it. When we reflect on the state of things in 1870, the immense progress that has been made can be realised. At that period only the Dragoons, Hussars, and some Uhlan units were supplied with a passable carbine, whilst the rest of the cavalry were provided with a bad pistol, which only carried a few yards. To-day, on the other hand, the whole of the cavalry possesses an excellent arm, the precision of which is beyond dispute; it goes without saying that it depends on the training of the men to bring out the true value of the new weapon. The new Regulation lays stress on this point: all the theory of aiming and musketry instruction proper must naturally be carried out on similar lines to that adopted for the infantry. It must, however, not be forgotten that musketry, important as it is for cavalry, can only take second place—equitation comes notably first.—*Revue Militaire Suisse.*

Railways in Persia.—Translation and Summary of an Article in the "*Novoe Vremya*," of 7th December, 1909.—In the year 1910 the Convention which was concluded between Russia and Persia in 1889¹ will expire. Under its terms the Persian Government agreed to grant no concessions for railway building in Persia without previously obtaining Russia's consent.

The origin of this Convention is as follows: In the year 1889 certain Russian firms received permission from Shah Nasruddin

¹The Convention was renewed in 1900 for ten years.

Persia.

to construct a railway from Resht to the port of Chahbar, on the Indian Ocean. The Russian Foreign Office, however, under the impression that Great Britain would demand equivalent rights—a claim which Russia would be unable to refuse—extracted a promise from the Shah that he would grant no concession without first obtaining the permission of the Russian Government.

It is unnecessary to comment here upon the nervousness and want of self-confidence which led the Russian Government to propose such a Convention. Whatever its motives may have been in 1899, the Russian Foreign Office will in 1910 be obliged to come to a decision once more on the question of railway construction in Persia.

Meanwhile a third great Power has entered the arena—Germany.

Both Great Britain and Germany have done everything in their power to evade the terms of the Russo-Persian Convention, and have taken the necessary preliminary steps to solve the question of railway development in Persia on the lines best suited to their individual economic interests and the extension of their political influence.

Great Britain has obtained a concession from the Persian Government permitting the free navigation of the River Karun. This enables English goods to be landed at Shuster and to be carried thence by the paved carriage road to Ispahan and Tehran. A railway has been already constructed from Quetta to Nushki, and it is intended to extend it in the direction of Seistan.

Germany, by means of the Baghdad Railway, has already attained a supreme position in the markets of Asia Minor, and is working her way to Northern Persia, along the route Khanakin, Kermanshah, Hamadan, and Tehran. Upon the completion of the Baghdad Railway, a branch on the line indicated would enable her, in the absence of Russian railway construction in Persia, to dominate the markets of Azerbaijan and Mazanderan. These provinces are at once Russia's best customers and, in a commercial sense, the most important in all Persia. From Khanakin to Tehran is only 435 miles through country which offers no obstacle to railway construction.

Germany's attempts to obtain navigation rights on the Lake of Urumia and to establish a bank in Tehran afford further proof of her determination to capture the markets of N.W. Persia.

On the other hand, it must be confessed that Russia, having built the Caucasian and Central Asian Lines to the frontier of Persia, has done little lately towards the solution of the problem so soon to be put to her. In N.W. Persia three high roads have been made—Julfa-Tabriz, Enzeli-Tehran, and Kazvin-Hamadan; but the development of N.E. Persia has been neglected, though roads might have been constructed from points on the Central Asian Railway, such as Askhabad, Kaaka, Dushak or Kushk. Meanwhile the British are fully alive to the situation. When their railway has reached Seistan, and that province has been annexed, they will no doubt extend it to the north into the fertile province of Khorasan.

It should be the aim of Russian policy, as a first step towards railway extension, to construct roads in N.E. Persia to join with those from Trans-Caucasia.

Persia.

The capital of Khorasan is Meshed, the religious metropolis of Persia, and the fourth city of the Empire in commercial importance, ranking next after Tabriz, Ispahan, and Tehran. It marks the junction of five important routes. The distance to Meshed from any of the four points on the Central Asian Railway mentioned above in no case exceeds 200 miles, and from Kaaka it is only 96 miles.

From Meshed a caravan route has long existed through Sabzawar, Davaghan, and Samman to Tehran; it is by this route that any extension of the Central Asian railway system through Eastern Persia should be linked with the Trans-Caucasian line prolonged from Julfa.

It is important that Russian public opinion should be directed to the necessity for the construction of this line, as the country through which it will run is in the Russian sphere of influence, and the term of the agreement with Persia is about to expire.—*Contributed by the General Staff.*

NAVAL AND MILITARY CALENDAR.

FEBRUARY, 1910.

- 1st (T.) H.M.S. *Minotaur* left Portsmouth for China.
- " " 2nd Bn. King's Royal Rifle Corps arrived at Southampton from India.
- 4th (F.) 1st Bn. Northamptonshire Regiment arrived at Aden from India.
- 9th (W.) Launch from the Fairfield Yard, Govan, of the destroyer *Parramatta* for the Commonwealth Navy.
- 18th (F.) 2nd Bn. Duke of Cornwall's Light Infantry arrived at Durban from Bermuda.
- 21st (M.) 1st Bn. Royal West Surrey Regiment arrived at Southampton from Aden.
- 23rd (W.) Chinese Army occupied Lhasa in force. Dalai Lama fled to India.
- 24th (Th.) Launch of third-class cruiser *Bristol* from Clydebank.
- 26th (Sat.) 2nd Bn. Welsh Regiment left Durban for Southampton. Deposition of Dalai Lama by Chinese Government announced.

FOREIGN PERIODICALS.

NAVAL.

ARGENTINE REPUBLIC.—*Boletín del Centro Naval*. Buenos Aires: November, 1909.—“General Regulations for the Naval Service Afloat.” “Naval War Game.” “A Method of Adjusting Range-Finders.” “Some Reflections on the B Powders.” “Fourth Pan-American Scientific Congress: The Mercator Perfoliograph.” “The Necessity for a Torpedo Firing Ground.” “New Method for Correcting the Variations of Initial Velocity.” “Modern Battleships.”

AUSTRIA-HUNGARY.—*Mittheilungen aus dem Gebiete des Seewesens*. No. 3. Pola: March, 1910.—“Reflections on the Value of Knowledge of Naval War History.” “Extracts from the Year's Reports of the Chiefs of Bureaux of the U.S. Navy.” “On the Stability of Smokeless Powders.” “The New French 23,400-ton Battleships.” “Meeting of the French Superior Council of the Navy.” “Statistics Relating to the Austro-Hungarian Mercantile Marine for 1909.” “The Act Relating to the Distribution of the French Fleet.”

BRAZIL.—*Revista Marítima Brasileira*. Rio de Janeiro: December, 1909.—“The Monument to Admiral Barroso.” “The Naval Estimates.” “The Battle Projectile in Face of Modern Naval Construction.” “Practical School of Artillery.” “Dirigibles.” “Naval Hygiene.” “Hydro-Electric Power in Brazil” (*continued*). “The Brazilian Navy.”

CHILE.—*Revista de Marina*. Valparaíso: November, 1909.—“A Work of Justice.” “Radiotelegraphy.” “A Good Stimulus.” “Revolvers and Pistols.” “Dynamometers and Transformers.” “The Question of Projectiles.” “The Arica Sanitary Station.” “National Naval Pilots.”

FRANCE.—*Revue Maritime*. Paris: January, 1910.—“Position without the Sea Horizon: Gyroscopic Horizon of Admiral Fleuryais.” “The Rôle of Modern Torpedo Vessels.” “Progress of Artillery in 1908-09.” “Torpedo Service of To-day and To-morrow.” “The Defence Laws of Denmark.”

La Marine Française. Paris: February, 1910.—“The New Naval Artillery Corps.” “Everybody's Opinions: Our New Naval Programme.” “Foreign Navies: The English Naval Year.” “The 23,000-ton Battleships.” “The Service of Artillery Abroad.” “An Enquiry into Our Navy.” “The Reform of the Central Administration.” “Apropos of Boilers: The Walpurgis Night.” “Let us Simplify.” “German Naval Power.”

La Vie Maritime. Paris: 10th February, 1910.—"The New Constructions." "Our Seamen Navigate." "The Visit of the Chinese Naval Mission to the Creusot Works." "Our Seamen and the Inundations in Paris." "A Series of Accidents in Our Fleet." "The Boiler of the *Loiret*." "An Ottoman Squadron." "A Mission to the Indret Works." 25th February.—"Apropos of the Battleship." "Our 23,000-ton Battleships and the English." "Prize Firing in the Fleet." "Apropos of a Grounding." "The *Dupuy-de-Lôme*." "The Defence against Torpedo Boats." "On the Subject of the *Loiret*."

Le Yacht. Paris: 5th February, 1910.—"The Administration and Control in the Fleet." "Yachting Notes." "Naval Construction in 1909." 12th February.—"The Refloating Trials of the *Narval*." "Yachting Notes." "The New Naval Programme." "The New Brazilian Battleship *Minas Geraes*." "Condemned Ships." 19th February.—"That which Hinders the Evolution of our Navy." "Yachting Notes." "Foreign Navies in 1909." "The 23,500-ton Battleships." "The Charcot Expedition." 26th February.—"The Dockyard at Bizerta." "Yachting Notes." "The Cruiser Scouts." "A New Steam Engine."

Le Moniteur de la Flotte. Paris: 5th February, 1910.—"The Service Projectiles: The 34-cm. Gun." "The Central Torpedo Service." "The Administrative and Technical Personnels." "The Navy in Parliament." 12th February.—"The Naval Programme." "The Act for the Constitution of the Fleet." "For Our Gun-Layers." 19th February.—"The Act for the Constitution of the Fleet." "Promotion Among the Men of the Fleet." 26th February.—"The Submarine Torpedo Boat." "The Navy in Parliament."

GERMANY.—*Marine Rundschau.* Berlin: March, 1910.—"The English Expedition to the Scheldt in 1809." "The Importance of the Making Pearl Harbour the Principal Naval Base of the U.S. Fleet." "Can Fog Affect the Compasses?" "The Reorganisation of the French Naval Administration." "China's Plans for a Fleet."

ITALY.—*Rivista Marittima.* Rome: January, 1910.—"Physical Training in the Navy." "A Synthetic Theory of the Screw Propeller." "For the Defence of the Fisheries in the Adriatic." "In Honour of Francesco Passino." Supplement.—"The Naval Budget for the Financial Year 1910-11."

PORTUGAL.—*Revista Portuguesa, Colonial e Maritima.* Lisbon: December, 1909.—"Régime of the Native Proprietary" (continued). "Colonial Problems" (continued). "History of the Conquest of Abyssinia (XVIth Century)." "Genealogical and Biographical Data of Some Fayal Families." "The Colonial Movement."

Annaes do Club Militar Naval. Lisbon: December, 1909.—"Spots in the Sun and Earth Tremors." "Practical Schools." "Succinot and Descriptive Account of the Portuguese Sismograph." "Notes on Atmospheric Movements."

SPAIN.—*Revista General de Marina*. Madrid: February, 1910.—Has not yet been received.

MILITARY.

AUSTRIA-HUNGARY.—*Danzer's Armee-Zeitung*. Vienna: 3rd February, 1910.—“General of Infantry Wilhelm Freiherr von Reinländer: Obituary Notice.” “Our *Rapprochement* with Russia.” “A Frenchman on Austria and Italy.” “Reminiscences of an Hungarian Prisoner of War, 1848-49” (concluded). 10th February.—“The Financial Position of Our Regimental Officers.” “Marked Preparations for War.” “From Southernmost Austria.” “A Letter on the Milan Revolutionary Outbreak on 6th February, 1853 (From a Staff Officer of the Cremona Garrison to Lieut.-General Graf Jelachich, Ban of Croatia).” “W. Gostach u Njemtzev.” 17th February.—“Meine Herren, Arbeiten Sie!” “Italian Views on the Italian Frontier Defence.” “The Danube Bridge at Corabia.” “Reminiscences of the Klapka Region, 1866.” “The Reform of the Military Penal Code.”

Streffleur's Militärische Zeitschrift. Vienna: February, 1910.—“The Commanding Generals in Prague, 1621, up to the Present Time” (continued). “Contributions to the History of the Russo-Turkish War, 1877-78” (continued). “On the Military Utility of Dirigible Balloons and Flying Machines.” “The Use of Field Howitzers in War.” “The Russo-Japanese War: Criticisms and Remarks by Combatants.” “War as Breeder.” “Communications from the Army Schools of Musketry.”

Kavalleristische Monatshefte. Vienna: February, 1910.—“Concise Maxims for the Plans and Carrying Out of Battle Practices of Cavalry Divisions.” “Grand Seigneur and Colonel: Field-Marshal Prince Alfred zu Windisch-Grätz.” “Cavalry Attack against Artillery.” “In Flank and Rear of the Enemy.” “On Breaking in and Training.” “The Work in Hand.” “Fighting Moments of Cavalry according to Historical War Data.” “Distance Rides.” “The Intellectual Faculties of the Horse.” “The Breaking in of Draught Animals for Mountain-Gun Batteries.” “On the Remounting of the English Army.”

BELGIUM.—*Bulletin de la Presse et de la Bibliographie Militaires*. Brussels: 15th January, 1910.—“The Battle of the Future.” “Russian Infantry Manœuvre Regulations (1908)” (continued). 31st January.—“Russian Infantry Manœuvre Regulations (1908)” (concluded). “The Battle of the Future” (continued).

FRANCE.—*Journal des Sciences Militaires*. Paris: 1st February, 1910.—“The Medical Service in the Field” (continued). “The Education of Solidarity in the Army.” “*Après* of the Competitive Examination for Admission to the Superior School of War.” “War and Compulsory Service” (continued). “The Employment of the Engineer Troops in Conjunction with the other Arms” (concluded). “Pay and Retirement” (continued). 15th February.—“The Law of the Cadres and Effectives of Infantry.” “The Cyclists' Support of Artillery.” “The Balance of

Ideas in the Field Artillery." "War and Obligatory Service" (continued). "Pay and Retirement" (concluded).

Revue d'Infanterie. Paris: January, 1910.—"Modifications Introduced into the German Infantry Manœuvre Regulations." "Battle Firing." "The German Cavalry Divisions at the Imperial Manœuvres of 1908." "The New Field Service Regulations in the English Army." "Technical Inventions: The New Range-Finder for the English Infantry."

Revue de Cavalerie. Paris: January, 1910.—"General Donop." "Cavalry Evolutions and Cavalry Combat in Germany and France." "The Regulations of 1910" (continued). "Programmes and Reports of Practical Exercises of Cadres." "The Future of French Fencing, or the Evolution of Fencing or Modern Fencing."

Revue d'Artillerie. Paris: December, 1909.—"Aerostation and Aviation." "Artillery on Camel-back" (concluded). "The First Inspector-General of Artillery."

Revue Militaire Générale. Paris: January, 1910.—"The Question of the Black Troops." "The Grand Italian Manœuvres in 1909." "Steinmetz and Bazaine." "Apropos of the Educational Courses of the Different Arms." "Letter of a Belgian Officer."

Revue d'Histoire. Paris: February, 1910.—"The Armies of Louis XIV. in 1674" (continued). "The Department of War in the Year IV. (1797)" (continued). "The Soldiers of the Revolution and of the Empire." "The Campaign of 1813: The Preliminaries" (continued). "Machine Guns in 1870" (continued). "The War of 1870-71: The National Defence in the Provinces" (continued).

Revue Militaire des Armées Étrangères. Paris: February, 1910.—"The Operations Round Melilla in 1909." "New National Defence Organisation in Denmark" (concluded). "The New Belgian Military Law of 14th December, 1909."

GERMANY.—*Militär-Wochenblatt.* Berlin: 1st February, 1910.—"A Good Word at the Right Moment." "The English Territorial Army." "Once More: Individual Training in the Dusk and Night." 3rd February.—"The English Territorial Army" (concluded). "Two Hundred and Fifty Years Ago: The Siege of Stettin by the Imperial Troops under Lieut.-General De Souches and the Brandenburgers under Count Dohna. End of the Campaign in Pomerania." "The Turkish Army." "On Scouting." 5th February.—"More of the Infantry Drill Regulations." "The Conclusion of the Spanish War in Morocco." "Two Hundred and Fifty Years Ago" (continued). "Fillis's Handling of Reins." 8th February.—"Military Society of Berlin." "Attack Manœuvres." "The Conclusion of the Spanish War in Morocco" (concluded). "Two Hundred and Fifty Years Ago" (concluded). 10th February.—"Training and Fighting Principles in the New Japanese Infantry Regulations of 8th November, 1909." "Independence and Self-Reliance of the Company Leader." "The Turkish Army" (concluded). "Greater Centralisation of the Russian Army Administration." 12th February.—"The Centenary Jubilee of the Guard-Pioneer Battalion on 12th February." "Military Technical Review." "State of the Motor

Industry: I. Germany." "Independence and Self-Reliance of the Company Leader" (concluded). "The Training of the Despatch Rider for Finding His Way at Night." "The Italian Army: A Military Conflict in the Benadir Colony: II. A Criticism of the German System of Promotion." 15th February.—"Observations on the New German and English Firing Regulations." "News from South America." "Wireless Telegraphy in the French Field Army and Navy." 17th February.—"Proposals for Strengthening the Russian Forces." "The Assessing of Fire Effect." "Three Wishes in Relation to the New Riding Regulations." 19th February.—"Lieut.-General von Trotha: Obituary Notice." "On the History of the Military Commissariat Department." "The Commanding Generals of the German Army from 1889 to 1909" (continued). "Contributions to the New Adaptation of the Riding Instructions." 22nd February.—"Military Society of Berlin." "The War Firing of Our Infantry." "Riding Competitions." "On the History of the Military Commissariat Department" (continued). 24th February.—"A Word on the Cavalry Riding Instructions." "More about South America." "On the History of the Military Commissariat Department" (concluded). 26th February.—"Peasants on the Chessboard" (continued). "More Views on the New Riding Regulations." "The Italian Regulations for Machine Gun Detachments."

Artilleristische Monatshefte. Berlin: January, 1910.—"What Lessons can be Drawn from the Experiences of the War in East Asia, 1904-05, for the Use of the Artillery in Field War?" "Contribution to the Solution of the Problem of the Support of Infantry by Artillery in Battle." "Personal Impressions of the French Field Artillery." "Tyres." "The Handling of Arms and Fire Training."

Jahrbücher für die Deutsche Armee und Marine. Berlin: February, 1910.—"On the Military Service Commutation Tax Question." "How Napoleon, like Moltke, strove to Guarantee the Unity of the Command of the Army" (concluded). "March Performances, March Preparations and March Alleviations." "Field Howitzers and No End!" "Making the Defence Difficult by the Limitation to a Line."

ITALY.—*Rivista di Artiglieria e di Genio.* Rome: December, 1909.—"A Note on the Calculation of Ranges with a Horizontal Base Telemeter in Coast Batteries." "On the Supply of Drinking Water for Fortresses in War by Means of Ordinary Wells." "The Manœuvring of Artillery in Co-operation with Other Arms." "Infantry Officers Serving with Artillery." "The Problem of the Automatic Determination of Points on the Ground in Deliberate Siege Practice." "Giacomo Antonio Pasquale Nick-named San Giacomo."

Rivista Militare Italiana. Rome: 16th February, 1910.—"The Military Spirit of Italy during the Past Centuries." "The Tactics of Infantry in the Last Two Wars" (concluded). "Fortress Warfare." "Maritime Strategic Geography and Coast Defence." "Schools of Gunnery." "Military Medicine with Regard to the Two Year Service." "A National Institution for Soldiers' Libraries." "Three Projected Railways: The Creina, the San Bernardino and the Splügen Lines; Which should be Preferred?" "The Cottian Alps; a Descriptive Essay, etc." "Formations and Movements in the Infantry Training Regulations."

SPAIN.—*Revista Técnica de Infantería y Caballería*. Madrid: 1st January, 1910.—“The Evolution of Military Law in Modern Nations” (continued). “The Infantry in the French Army.” “The New German Cavalry Tactics” (continued). “The Question of the Aerial Fleet in France and Germany.” “Aerostation in Our Army.” 15th January, 1910.—“The Evolution of Military Law in Modern Nations” (continued). “The Infantry in the French Army” (continued). “The Blériot Flight from the Military Point of View.” “The New German Cavalry Tactics” (continued). “The Question of the Aerial Fleet in France and Germany” (continued).

Revista Científico-Militar Biblioteca Militar. Barcelona: 10th February, 1910.—“Lessons of the Riff War” (continued). “New Conception of Military Instruction.” “The Professional Reserve.” 25th February.—“Lessons of the Riff War” (continued). “New Conception of Military Instruction” (continued). “Importance Conceded to Movement in Japanese Tactics.” “Instruction in the English Army.”

SWITZERLAND.—*Revue Militaire Suisse*. Lausanne: February, 1910.—“The Manœuvres of the 2nd Division, 1909” (concluded). “Our Infantry Drill Regulations.” “The Medical Service.” “The Cyclist Question.”

UNITED STATES.—*Journal of the Military Service Institution*. Governor's Island: January-February, 1910.—“Military Pacification.” “A Military Policy Suited to the United States.” “The Japanese Forces in 1909.” “Regular Army in the Civil War.” “The Cavalry.” “Byways of Diplomacy: An Emperor's Letters.” “Hints on Umpiring War Games.” “A New Type of Officers' Quarters.” “The Evolution of Warfare.” “Political and Musical Side of War.” “The Two-Arm Semaphore Code.” “Types and Traditions of the Old Army.”

Journal of the United States Artillery. Fort Monroe: November-December, 1909.—“Attack of Warships and Tables of Fire Effect.” “Adjustment of the Eccentric Stud of the Swasey D.P.F.” “Methods for Offices of District Artillery Engineers and District Ordnance Officers.” “Efficiency: Its Encouragement and its Determination.” “The Militia Coast Defenders.” “Mechanical Range Transmission.” “Notes on Ballistics.”

Journal of the United States Cavalry Association. Fort Leavenworth, Kansas: January, 1910.—“Volunteer Cavalry: The Lessons of a Decade.” “Kit Carson.” “Signal Corps Troops with Divisional Cavalry.” “Organisation of a Regiment of Volunteer Cavalry.” “Notes on Riding at the Military Academy and the Mounted Service Schools.” “The War Game at Army Posts.”

Journal of the United States Infantry Association. No. 4. Washington: January, 1910.—“Under the Blotter.” “Comparison of the Conduct of Military Affairs in 1893 and 1861.” “The Army School of the Line.” “The Army Infantry Team at the National Matches, 1909.” “A Record in Military Mapping.” “Some Observations on Map Manœuvres.”

NOTICES OF BOOKS.

The Story of the Submarine. From the Earliest Ages to the Present Day.
By Colonel CYRIL FIELD, R.M.L.I. London: Sampson Low & Co.,
1909. Price 6s.

Although there are, unfortunately, a large number of people who do not trouble themselves about naval matters in general, yet there are many even of these to whose imagination the spice of romance attaching to navigating below the surface of the water, with its necessarily adherent risks, appeals, and to whom Colonel Field's "Story of the Submarine" should prove both useful and interesting.

The author gives an admirable account of submarine diving and navigation from the time when Alexander the Great is said to have explored the mysteries of the deep enclosed in a glass barrel, down to the latest development of the submarine boat in the present day. Diving, naturally, came long before submarine navigation in any form was attempted, and early in the Middle Ages we come across fragmentary information, even if it was somewhat vague, as to submarine warfare, and even navigation. Thus Bohaddin, an Arabian historian, who lived about A.D. 1150, mentions that some kind of submarine apparatus was used in order to enable a diver to get into Ptolemais with a message, when that city was besieged by the Crusaders. Eighty years later we find the famous Friar Bacon—long thought to be a wizard by his countrymen, but now recognised to have great claims to be considered a scientist—writing about the possibilities opened out to divers by the employment of air-tubes, and that apparatus could be made, and had been made in ancient days, to enable people to walk about below water. But however useful, both for general purposes and as a weapon of war (cutting ships' cables, etc.), diving may have been, undoubtedly the submarine boat was originally devised, as it is now, purely as a weapon of offence, and to serve as a vehicle for some form of explosive to be used under water for the destruction of ships.

Thus in 1629 we find Furtenbach, in his "History of Naval Architecture," states that the Barbary pirates were past masters of submarine attack, and by the beginning of the sixteenth century submarine navigation was already reckoned as among the possibilities of the time. To an Englishman, William Bourne, who had served as a gunner under Sir William Monson, one of Elizabeth's great naval commanders, belongs the credit of having worked out and published the first known detailed description of a submarine boat; but it was a Dutchman, Cornelius Van Drebbel, who is said to have built the first vessel really to go under water for James I.: it was tried on the Thames, and, according to the reports of those days, was entirely successful, the motive power being oars.

Coming down a century and a half later we find that a certain David Bushnell, of Maine, invented a practical submarine in 1776, and by means of it very nearly succeeded in blowing up H.M.S. *Eagle*, which was at that time lying in the Hudson River. The first, however, to achieve a real success was Robert Fulton, also an American, who in the year 1800 built the *Nautilus*, which was launched on the Seine and with which a number of successful experiments were made. He offered his boat to the French Government, but they refused his offer, Admiral Decrès, then Minister of Marine, reporting that the invention was "fit only for Algerines and Pirates."

He came to England, and although he received a certain amount of encouragement from Pitt, yet the long-headed Lord St. Vincent, who was then First Lord, would have nothing to do with him or his schemes. "Pitt," he told Fulton in an interview he accorded him, "is the greatest fool that ever existed, to encourage a mode of war which they who commanded the seas did not want, and which, if successful, would deprive them of it."

During the next fifty years submarine navigation made but little progress, but during the War of Secession in the United States, 1861-65, the Confederates constructed several submarine craft, which went by the name of *Dauids*, one of which, the first, in fact, to be built, succeeded in sinking a fine new Federal corvette, the *Housatonic*, off Charleston Harbour on the night of 17th February, 1864. The history of this *David* is an interesting one, for before making her one successful attack, she had drowned no less than thirty-five men, having sunk four times, taking her crews down with her; and it speaks much for Confederate gallantry that after this series of mishaps, when she was raised for the fifth time, yet another crew volunteered, to whom she also proved a grave, as not being able to extricate herself, she was carried by the *Housatonic* to the bottom with her as she sank. It is during the last twenty-five years that the modern submarine has been gradually evolved, and it is the French who have really been the pioneers in modern submarine evolution, although we in England, who have followed in their footsteps, have developed our present type from an American model. We can strongly recommend Colonel Field's book to all who wish to get some knowledge of what has now become a formidable fighting unit for modern war, for in it they will learn precisely what the modern submarine is, and what has been the nature of the types that have marked the advance and have led up to the present wonderful stage of development which has been reached. We may add, the book is full of excellent illustrations, most of them the work of the author himself.

The Chief Campaigns in Europe Since 1792. By General A. von HORSETZKY, Austrian Army. Translated by Lieutenant K. B. FERGUSON, R.G.A. London: John Murray, 1909. Price, 18s. net.

It was certainly very desirable that so well known and so valuable an epitome of comparatively modern war as this should have been translated into English and thus placed within easy reach of the British military student; and Lieutenant Ferguson may be heartily congratulated on having so performed his part that the book in its new form has none of the usual faults of the mere translation. It is, however, matter for extreme regret that while, owing, no doubt, to considerations of expense, the volume has been published without the abundance of really excellent maps which were so marked a feature of the original work. The price of the English version—eighteen shillings net—is certainly rather a prohibitive one for the officer who might wish to add this publication to his small but growing military library. This short history contains very careful and accurate summaries of the principal campaigns which have been waged within European limits, from the early wars in which the armies of revolutionary France were engaged at the close of the eighteenth century, to the Greco-Turkish War of 1897. It will thus be noticed, perhaps as

something of a restriction of the general utility of this work, that while the author has not been able to tell us anything whatever about the many campaigns of the very first importance which have taken place in other continents, the determination thus rigidly to limit the scope of the book has further obliged him to avoid discussion—or even mention—of other operations, which, however concerned with events transpiring in European theatres of war and forming, moreover, part of the original or subsidiary plans of campaign, were conducted, as in the case of the Crimean and Russo-Turkish wars, in the Asiatic Dominions of one of the belligerent Powers. It is inevitable that in a book written by an Austrian officer the campaigns in which Austrian troops have taken part should be dealt with at greater length than are those from which the armies of the Dual Monarchy have stood aside; but the main features of each war have been given their due prominence, and the descriptions of all seem unusually free from inaccuracies. The reviewer has not noticed that the author is hard upon our countrymen—a matter for which the translator makes some apology; that the motives of our policy have not always been understood or favourably regarded on the Continent of Europe, is a state of things which long custom has enabled us to view with tolerable equanimity.

On the whole, this book will be found of interest and value, and it is at any rate something of a change to get the Austrian (rather than the French or the German point of view) in regard to campaigns which all soldiers must at some time study.

PRINCIPAL ADDITIONS TO LIBRARY, FEBRUARY, 1910.

American Civil War. By J. H. ANDERSON. 8vo. 3s. 6d. (Presented.) (Hugh Rees, Ltd.) London, 1910.

Kriegsbriege aus den Jahren 1870-71. By General HANS VON KRETSCHMAN. 6th Edition. 8vo. 4s. 6d. (Greiner und Pfeiffer.) Stuttgart, 1904.

Lettres écrites au cours de la Guerre de 1870-1871 par Hans de Kretschman. Publiées par Lily Braun, née de Kretschman. Traduites de l'Allemand par le Capitaine Albert Latreille. 8vo. 6s. 3d. (Henri Charles Lavauzelle.) Paris, n.d.

Etudes de tactique appliquée. Le Combat de toutes armes. Par le Général PALAT. 8vo. 8s. 3d. (Berger-Levrault et Cie.) Paris, 1909.

The Peninsular War, 1808-14, and the Russo-Japanese War, 1904-5, Compared from the Strategic Point of View. By T. MILLER MAGUIRE. (Aldershot Military Society, No. 103.) Pamphlet crown 8vo. 6d. (Hugh Rees, Ltd.) London, 1909.

Impressions of Some of the Manchurian Battlefields. By Brevet-Major W. D. BIRD, D.S.O. (Aldershot Military Society, No. 104.) Pamphlet crown 8vo. 6d. (Hugh Rees, Ltd.) London, 1909.

A Century of Guns. A Sketch of the Leading Types of Sporting and Military Small Arms. By H. J. BLANCH. 8vo. (Presented.) (J. Blanch & Son.) London, 1909.

- L'Art nouveau en Tactique.* By General H. BONNALL. 8vo. 2s. 8d.
(R. Chapelot et Cie.) Paris, 1904.
-
- The Gates of India.* By Colonel Sir THOMAS HOLDICH. 8vo. 10s.
(Macmillan & Co., Ltd.) London, 1910.
-
- Handbook of the Montenegrin Army.* Prepared by the General Staff.
12mo. (Mackie & Co.) London, 1909.
-
- Souvenirs d'un Franc-Tireur pendant le Siège de Paris.* By G. GUILLAUME.
Crown 8vo. 3s. (Berger-Levrault et Cie.) Paris, n.d.
-
- Cerfs-Volants Militaires.* By Captain J. T. SACONNEY. 8vo. 2s. 6d.
(Berger-Levrault et Cie.) Paris, 1909.
-
- The Indian Mutiny up to the Relief of Lucknow (November 17th, 1857).*
By Dr. J. FITZGERALD LEE and Captain F. W. RADCLIFFE. 8vo. 4s. 8d.
(Presented.) (Commercial Union Press.) Rawalpindi, n.d.
-
- Questions and Answers on Grant's Campaign in Virginia, May and June, 1864.* By Dr. J. FITZGERALD LEE and Captain F. W. RADCLIFFE. 8vo. 3s. 6d. (Presented.) (Commercial Union Press.) Rawalpindi, 1909.
-
- Grundriss der Befestigungslehre.* By Captain W. STAVENHAGEN. 8vo. 10s. (Presented.) (E. S. Mittler und Sohn.) Berlin, 1910.
-
- The War of Secession, 1861-1862.* By Major G. W. REDWAY. Crown 8vo. 5s. (Presented.) (Swan, Sonnenschein & Co., Ltd.) London, 1910.
-
- Encounter and Counterstroke, Illustrated by the Campaign of Salamanca.*
By Brigadier-General E. S. MAY. (Military Society of Ireland.)
Crown 8vo. Dublin, 1910.
-
- The British Army in a European War.* By General H. LANGLOIS. Translated by Captain C. F. ATKINSON. 8vo. 1s. 6d. (Presented.) (Hugh Rees, Ltd.) London, 1910.
-
- Historical Records of the Queen's Own Cameron Highlanders.* 2 Vols. 4to. £3 3s. (William Blackwood & Sons.) Edinburgh, 1909.
-
- Military Sanitation.* By Major R. J. BLACKHAM, R.A.M.C. Crown 8vo. 5s. (Thacker & Co.) London, 1909.
-
- Harnsworth Atlas and Gazetteer.* Imp. 4to. 50s. (Carmelite House.) London, 1909.
-
- Service des Substances Militaires—Alimentation en Campagne.* 8vo. 8d. (Charles-Lavauzelle.) Paris, 1909.
-
- A Sketch of the British Occupation of Buenos Aires, and the Revolt of the Spanish Colonies in South America, in the Early Part of the Nineteenth Century.* By Colonel A. J. GODLEY, General Staff. (Aldershot Military Society, No. 105.) Pamphlet crown 8vo. 6d. (Hugh Rees, Ltd.) London, 1910.

RECENT PUBLICATIONS OF MILITARY INTEREST.

COMPILED BY THE GENERAL STAFF, WAR OFFICE.

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PREFATORY NOTE.

This Pamphlet will be issued quarterly, in April, July, October and January. Its purpose is to draw the attention of Officers to British and Foreign publications of Military interest which are likely to assist them in their professional work. Copies of the pamphlet will be distributed to the Headquarters of Commands, Educational Establishments, Units and Reference Libraries.

PART II.

SECTION I.

- NOTE.—1. When the price is not given in Part II., Section I., it is not known.
2. In Part II., Section I., books whose titles are given in foreign languages as well as in English are published in those languages, and are not translated.

STRATEGICAL AND TACTICAL.

Austria and Italy (Autriche et Italie). By Captain Victor Duruy. 150 pp., with 8 maps. 8vo. Paris, 1909. Chapelot. 2/6.

Captain Duruy's book is full of information and forms a valuable work of reference as regards the preparedness for war of the two nations concerned.

The author occasionally makes deductions which are always short and to the point, but is usually content to marshal his facts in a laud manner and to leave the reader to draw his own conclusions.

The peace and war organisation of the two Armies are first considered; in subsequent chapters the frontier and coast fortifications, the zones of concentration and railway systems of the respective countries are thoroughly examined; the tendencies of the two countries are then treated of, the writer demonstrating that the military centre of gravity in Austria has shifted from the Russian to the Italian frontier. The maps are hardly worthy of the letterpress.

A Theoretical Study of the Decisive Attack (Etude théorique sur l'attaque décisive). By Major Buat. 131 pp., with eleven maps and numerous diagrams. Svo. Paris, 1909. Chapelot. 4/2.

Major Buat does not make use of the term "decisive attack" as in contradistinction to a "holding attack." In his opinion a "holding attack" pure and simple is contrary to all the laws of war, as it must be the aim of each and every attack at least to drive the enemy from his fire position. He does, however, employ the phrase "partial attack," and affirms that the object of such attack is to attain success in one particular locality, whilst the "decisive attack," on the other hand, must aim at securing such a success as will ensure the complete rout of the whole of the enemy's forces engaged. The distinction between the two is thus one of degree and not of kind; each endeavours to thrust back the enemy from the position which he is holding, but to the "decisive attack," involving the employment of greater masses, falls the task of pushing the initial success to the utmost, till by the repelling of counter-attacks, and by the rout of the enemy's reserves, complete and undisputed victory is assured.

As regards the attack itself, the writer's theory is that preparation for it consists solely in obtaining superiority of fire, and that the actual attack cannot be launched till such superiority has been obtained. The advance to a fire position, which he considers in the case of infantry should be at about 800 yards or less from the line occupied by the enemy, is thus regarded by him as a merely preliminary measure.

The first chapter is devoted to the theory of the attack, and explains very clearly the principles which he advocates, and the formations he suggests. Each of the remaining three chapters gives a concrete example of a decisive attack, the various movements of both sides being followed out in detail, whilst the positions occupied during succeeding phases are indicated on the maps which accompany the volume.

Handbook of Tactics (Handbuch der Taktik). Major Immanuel (German Army). 2 vols. Vol. I., 433 pp. Vol. 2, 299 pp., with numerous diagrams in the text. Berlin, 1910. Mittler. 13/6.

This is a revise of the first edition published in 1905. The author, who commands an infantry battalion, and is a well-known writer on tactical subjects, states in the preface that the object of his book is not to improve on the teaching of the German regulations, but to give in a compact form a *résumé* of modern tactical ideas. With this object, each chapter, after dealing at length with the German teaching on any subject, concludes with a short summary of the views held in the chief military States on the same question.

The first volume deals with Army organization, issue of orders, reconnaissance, marches and tactics of the several arms; the second volume treats of the battle, transport, supplies, communications, medical service and field fortifications. The book concludes with an index.

Tactics and Employment in Action of Infantry Machine Gun Sections (Taktik und Gefechtstätigkeit der Infanterie Maschinengewehr-Abteilungen). By Captain Ferdinand Richter, Austro-Hungarian Army. 108 pp. Svo. Vienna, 1909. Seidel. 2/6.

The author deals with his subject under the following headings:—

The machine gun fight:—

- (a) Battle value of the machine gun.
- (b) Characteristics of machine gun fire.
- (c) Various kinds of fire.
- (d) Rules for shooting.
- (e) Fundamental principles.

Leading. Distribution of machine gun sections in march formations before a battle. Choice of the fire position. Occupation of the fire position. Orders for the opening of fire, selection of target, conduct of the fire fight. The attack. General aspects of the employment of machine guns. Machine guns in the preliminary encounter. Role of machine guns during the infantry attack. The defence. Employment of machine guns against (a) cavalry, (b) artillery, (c) machine guns. Machine guns in wood fighting and hill warfare. Employment of machine guns with outposts in fortress warfare. Machine gun escorts. Ammunition reserve. Cover for machine guns. Japanese war experience of machine guns.

The Newest Machine Guns (Die neuesten Maschinengewehre). By Captain Fleck. 140 pp., with 13 illustrations in the text and 24 plates. Svo. Berlin, 1910. Mittler. 4/-.

This book is a continuation of the work by the same author, entitled "Machine Guns, their Technique and Tactics," which has already been reviewed in this publication.

The first thirty-nine pages are devoted to a brief description of the various kinds of machine gun equipment. The author then goes on to describe the machine gun organisations of the various military Powers, and discusses the tactical application of the weapon as interpreted in Germany, Austria and France.

A comparison is then drawn between the organisations of the machine gun units of the principal States, and the author finally comes to the conclusion that the machine gun question, far from being settled, is still in its infancy.

The illustrations are good.

Fire-leading in Infantry, Dismounted Cavalry and Machine Gun Combats (Feuerleitung im Gefechte der Infanterie, abgessenen Kavallerie und Maschinengewehre). The Austro-Hungarian Army School of Musketry. 138 pp. 8vo. Vienna, 1908. Seidel. 3/.

This book is arranged in three parts. The first deals with the tactics of fire-leading, the second with the technical aspect of fire-leading, and the last part with the theory of sectional machine gun fire.

Tactical Handbook (Taktisches Handbuch). By H. Schmid. 8th edition. 510 pp., with numerous illustrations and diagrams. 12mo. Vienna, 1910. Seidel. 4/8.

This unofficial publication combines for the Austrian Army the matter which is contained, in the case of our Army, in Field Service Regulations, Parts I. and II., and in the Field Service Pocket Book. There are at present no official regulations in Austria-Hungary exactly corresponding to the British manuals named.

TRAINING AND EDUCATION.

Operation Orders (Gefechtsbefehle). Part III. A Study in orders for a retreat. By Captain von Kiesling, German General Staff. 140 pp., with 2 maps. 8vo. Berlin, 1909. Eisenschmidt. 4/5.

This is the third of a series of studies in applied tactics by this author. It deals with the operations of an army corps and an infantry brigade forming the right of the 2nd Army of a main Red force opposed to a Blue invading force. The imaginary theatre of operations lies south of the Danube and north of Munich.

The opening pages are devoted to the general and special ideas; the latter sketches in detail the course of the first day's fighting and the situation at its conclusion. Full particulars are given about headquarters, combatant units, ammunition columns, medical and supply units, and methods of inter-communication. The exhaustive description of the work of one of the divisional staffs begins with the receipt of army corps instructions directing withdrawal to and across a river line, and notifying the approach from a flank of hostile forces capable of impeding the projected operation. The G.O.C. Division thereupon decides to assemble, reorganize and rest his command as far as possible before attempting any general movement. The orders which are issued as a result of this decision are given. They take the form of special instructions to the cavalry and a general divisional operation order. Means of transmission and other details are described in each case. The situation opposite one of the infantry brigades at the moment when divisional orders reach it is next described, and all arrangements by the brigade staff are given. A preliminary order sent to regiments, &c., by a mounted non-commissioned officer names the officers commanding sections of defence, gives directions as to patrolling, meals (field kitchens), and issue of further orders. These orders allot bivouacs and billets, name areas whence supplies, wood, water, &c., may be drawn, and give instructions as to protection. A noticeable feature in these divisional and brigade operation orders is the addition, in appendix form, of "special instructions" dealing with distribution of supplies, replenishment of ammunition, disposal of wounded, postal matters, &c.

Next follows a description of measures taken by two infantry regiments on receipt of brigade orders, one regiment having lost all except one of its field officers, most company commanders, and many others. The reorganization of battalions and companies, reports to neighbouring units, arrangements for bivouacs, supplies, water, ammunition, and care of wounded, are all minutely described.

Then comes a description of the action of the artillery "brigade" (i.e., two 6-battery regiments) with the division, when divisional orders reach it, as well as a summary of the situation at this moment. The positions of battery wagons (*Staffeln*) and light ammunition columns are explained. "Brigade" orders follow, containing directions for getting guns and all ammunition *echelons* to the positions ordered. The orders by one regimental commander (6 batteries) are given, as are also the arrangements for replenishing regimental supplies from the approaching divisional ammunition column. This closes the orders dealing with the first phase.

Returning to the divisional staff, the author deals with orders and arrangements for the retrograde movement which takes place in composite column under specially appointed commanders. He then turns to one of the two columns formed, describing the methods whereby its leader communicates with scattered—and in some cases newly-appointed—subordinate commanders. We learn, too, the methods by which units are brought to their appointed places on the march, and how transport, &c., is re-distributed. Similar details are given regarding the rear guard which covers the retreating columns. The action of different units which have to break away from the enemy is considered, as is also that of medical officers in charge of retreating columns, as far as wounded are concerned. The action of two companies in close contact with the enemy is now described. Their position is attacked just as the order to retire arrives. After a vividly portrayed picture of the loss and re-capture of a bridge, the book gives the decision and consequent measures of a subaltern, who, suddenly succeeding to the command here, feels bound to disregard the orders just received. Succeeding pages are devoted to the work of the colonel appointed to command the divisional rear guard, and gives arrangements for supplying its foremost units with food and ammunition. Lastly comes a description of the withdrawal of these same units. In a conclusion the author explains the objects of the work, viz., to call attention in a simple manner to the different phases and forms of duties in action, to teach the art of giving orders, and to lay weight on the "positive" as opposed

to the "abstract" side of military education. He considers that young officers are placed in command of unduly large bodies in theoretical exercises, and that consequently the elementary basis of their military knowledge is often lacking.

The life-like pictures of the situation which precede the examination of tactical decisions, and administrative measures in every instance, add greatly to the usefulness of the book. Especially noteworthy are the arrangements for communication between all commanders and units, and for the movements of transport.

A careful system of cross references facilitates the comprehension of a necessarily complicated situation. The extraordinarily clear and short phraseology is rendered possible by the scientific military vocabulary which Germany possesses. The orders are, in fact, models, and the book presents a useful, attractive, and to English readers novel method of teaching tactics and administration. In order to derive full benefit from the book, a thorough knowledge of German Army organisation and of the abbreviations so plentifully used in their Service, is necessary.

The 1/100,000 tactical map is well suited for the study of the subject matter.

Lectures on Service in the Field (Conférences sur le Service en Campagne). By Lieutenant Cournot. 180 pp., with numerous plates. 8vo. Paris, 1907. Chapelot.

This book, which deals in an elementary manner with those duties which a small unit not exceeding the strength of a company, may be called upon to carry out in the field, is primarily intended for the use of junior officers and non-commissioned officers.

The author considers his subject under the five following headings:—

Orders, reports, and sketches.

The services of security.

Marches, camps, and cantonments.

Provision of supplies and ammunition.

Detachments.

Each of these he discusses in simple language, and explains the dispositions he suggests by means of plates and sketches. He concludes by giving solutions of a few simple problems illustrative of the various headings touched upon.

The volume is unpretentious, and the author lays no claim to great originality of thought; it is, however, a work which might prove of assistance to a company commander in drawing up small schemes for use during company training.

Infantry Training Regulations Explained by Historical Illustrations (Le Règlement d'Infanterie Expliqué par l'Histoire). By Major Bize. 216 pp., with 8 maps. 8vo. Paris, 1909. Chapelot. 4/2.

The author, although he enulogises the French Infantry Training Regulations of 1904, is forced to admit that they, in common with kindred regulations which, from their very nature, must necessarily consist more or less of a series of "conclusions," afford somewhat monotonous reading for the average officer. In order, therefore, to render their study more interesting, he has endeavoured to show how past experience has influenced the compilers in drawing their deductions, and, further, to demonstrate from actual incidents in recent wars how non-observance of the principles inculcated has led to disaster, and an intelligent application of them been crowned with success. These incidents are drawn chiefly from the battles of Würth and Gravelotte-St. Privat, and are clearly illustrated by means of an excellent series of maps.

The author confined his attention mainly to such situations as arise during the preliminary phases of an engagement, for it is at this period that a subordinate officer is more frequently afforded opportunity for displaying initiative, and that there is greater scope for individual action.

Apart from illustrating the teaching of the Training Manual, the writer gives a short but clear account of the course of the 1870 war from the events leading up to the battle of Würth to the investment of Metz. The volume is thus one which enables an officer to study a most interesting period of military history in the manner best calculated to afford him instruction of real value.

Artillery for the Other Arms (L'Artillerie pour les autres Armes). By Captain Tréguier. 189 pp., with 50 figures in the text. 8vo. Paris, 1909. Lavauzelle. 2/6.

As its name implies, this book is intended primarily to assist officers other than those belonging to the artillery in acquiring such knowledge regarding artillery technique, fire, and tactics as is likely to be of service to them in the field. The author points out that such a knowledge is now almost indispensable for officers of infantry, as without it they are unable to co-ordinate their own efforts with those of the artillery, or to gauge the degree of assistance they can hope for from the fire of the guns. The book is divided into two parts: the first deals with technical matters, such as the nature and effect of projectiles, method of laying, sighting and ranging, night firing and ammunition supply; the second treats of tactical employment.

In Part I., perhaps the most instructive chapter is that in which is discussed the effect of artillery fire on infantry in various formations. Part II. gives a clear impression of the principles on which the French artillery is employed in the field, especially as concerns the means of affording support to the other arms, and draws an interesting comparison between the tactical employment of artillery in the French and German Armies.

Captain Tréguier has written his book in simple language without assuming too high a standard of technical knowledge on the part of his readers.

Instructional Book for Machine Gun Batteries (Unterrichtsbuch für die Maschinengewehr-Abteilungen). 4th edition. By Lieutenant Friedrich von Merkatz, No. 2 Guard Machine Gun Battery. 232 pp., with woodcuts and diagrams in text. 8vo. Berlin, 1908. Eisenschmidt. 1/-.

A popular handbook for recruits of machine gun units, containing a great deal of useful information.

It is written in five parts.

Part I. opens with a brief sketch of German history, with special reference to the Army, in which are included some stirring battle pictures of the campaigns of 1864, 1866 and 1870, calculated to rouse the martial ardour of the soldier. This is followed by a list of the reigning kings and princes of the several German States, the Articles of War, method of submitting complaints, crimes and punishments, interior economy generally, the method of addressing superiors, and the distribution of the Army.

Part II. deals with equipment, Part III. with the instruction of the recruit in the use of the machine gun and musketry, Part IV. with a brief sketch of the tactical use of machine guns in the field, and Part V. with the care of the horse, equitation and driving.

It is interesting to note that under "Distribution of the Army" in Part I., the author promises a list of the infantry machine gun companies in a later edition. Nothing official has been published in this connection as yet.

The Training of the Infantry Non-Commissioned Officer (L'Instruction du sous-officier d'infanterie). By Captain Duruy. 32 pp. 8vo. Paris, 1909. Chapelot. -/7.

Captain Duruy contends that an officer has no more important duty than that of training the non-commissioned officers under his command. To further his contention he points out that in recent wars casualties in the commissioned ranks, as compared with those amongst the rank and file, have shown an ever-increasing proportion, with the result that non-commissioned officers have frequently found themselves charged with a command far higher than their peace training would warrant them to assume. He therefore advocates a system of training tending to give the non-commissioned officer greater confidence in his powers to lead men in the field, as apart from the power of commanding obedience and ensuring discipline in matters of barrack routine. To attain this end he holds that company officers should do everything in their power to assist non-commissioned officers in acquiring a theoretical knowledge of the duties which junior officers must carry out on service, and that they should be given further facilities for exercising independent command in the field.

The Handling of a Picquet (Placement d'un petit poste). By A. B. 52 pp. and one map. 8vo. Paris, 1909. Chapelot. -/10.

This short work gives a description of the method adopted by the commander of a French infantry regiment with a view to training his non-commissioned officers in picquet and patrol duties. The instruction partakes of the nature of a small regimental tour, the ground on which the scheme is carried out having been previously studied on a large scale map or relief model. The working of sections, squads, and patrols is given in minute detail, the course of action of each being closely followed and elucidated by means of question and answer.

The book contains original ideas, and would be found useful by a company commander during the winter training of his non-commissioned officers.

Modern Riding. By Major N. Birch. 262 pp., with index. 8vo. London, 1909. Hutchinson. 6/-.

Major Noel Birch gives in this book his reasoned opinions as to the best way to train and educate a horse and the man who is to ride it. His views are based on a careful study of the literature which exists on the subject and on the methods employed in other countries, combined with several years' practical experience in the Riding Establishment at Woolwich.

The late Inspector of R.H. and F. Artillery bears witness to the successful results of Major Birch's system, an opinion with which all who saw the performance of the Rough Riders of the R.A. Riding Establishment at the Military Tournament will fully agree.

The author addresses his pages especially to the members of the Territorial Force, whose opportunities for passing through riding courses are limited; but the book should appeal equally to every soldier who has to do with horses, and is anxious to improve the efficiency of the men and horses committed to his charge.

German Colonial Languages. Vol. I. The Herero Language in German South-West Africa (Deutsche Kolonialsprachen. Band I. Die Sprache der Herero in Deutsch-Südwestafrika). By Carl Meinhof. 114 pp. 8vo. Berlin, 1909. Reimer. 4/-.

This work is a grammar and vocabulary of the language of the Hereros, and would be of great use to anyone desirous of becoming acquainted with their modes of speech.

Notes on Organization and Equipment. (6th Edition.) By Lieutenant-Colonel H. M. Brunner. 309 pp. 8vo. London, 1909. Clowes. 7/6.

The last edition of this book was published in 1907, since when numerous changes in the organization and constitution of the Army have taken place. These are shown in the present edition, which otherwise retains the main features previously adopted, and will be found of assistance to candidates for the Staff College and Promotion Examinations.

Examination papers for the Staff College from 1898 till 1907 and for promotion from 1901 till 1908 are given.

The composition of the larger formations and the system of food supply and ammunition supply in the field are clearly shown by means of plates at the end of the volume.

TRAVEL AND TOPOGRAPHICAL.

Information Handbooks on the Balkan Peninsula (Zur Kunde der Balkanhalbinsel). By Dr. Karl Patsch. Parts VI.—X. Each part 70-80 pp., with pictures and maps. 8vo. Serajevo, 1909. D. v. Kajon. 2/6.

The previous five parts of this series of books appeared in 1907. The present parts describe journeys undertaken by different individuals in Northern Albania, Southern Macedonia, and the "Karst" region of country along the Eastern Adriatic Coast.

The journeys do not cover any very great extent of country, but of such regions as were visited a full and careful enough description is given.

Perhaps at the present juncture the most interesting parts are Nos. 6 and 10, dealing respectively with the country between the Adriatic and the Black Drina, and with the North Albanian highlands.

The Bosnian Eastern Railway (Die Bosnische Ostbahn). By M. Preindlsberger-Mazovic. 172 pp., with 2 maps and illustrations. Vienna and Leipzig, 1909. Hartleben. 3/-.

The above is a guide book designed for tourists. It describes the region traversed by the lines of rail from Serajevo, eastward to the Serbian and Turkish frontiers.

A Military Consul in Turkey. By Captain A. F. Townshend, F.R.G.S., late of the Scottish Rifles. 324 pp., with 1 map and illustrations. 8vo. London, 1910. Seeley. 16/-.

The account given by the author of his experiences as a Military Consul in Turkey describes the country and conditions therein as he saw them from 1903 to 1906, not long before the Young Turkish Party came into power.

In the last chapter Captain Townshend deals with the new régime and has endeavoured to form an estimate of its probable stability.

Besides being of interest to the general reader, the book contains valuable information and hints for anyone taking up an appointment in Turkey or travelling for the first time off the beaten track in that country.

A map and illustrations add to the value of the publication.

Through Persia from the Gulf to the Caspian. By F. B. Bradley-Birt, I.C.S., F.R.G.S. 325 pp., with an index, 31 illustrations, and a map. 8vo. London, 1909. Smith, Elder and Co.

This record of a journey home from India contains a considerable amount of useful information regarding one of the main trade routes of Persia. It also gives interesting glimpses of Persian history, and a graphic sketch of the characteristics of the people of the country. The military reader will also find some useful hints regarding the climate, transport, and equipment.

MISCELLANEOUS.

The Economic Position of Germany in the case of War (Die deutsche Volkswirtschaft im Kriegsfall). By Dr. Voelcker. 153 pp. 8vo. Leipzig, 1909. Dr. W. Klinkhardt. 3/9.

The object of the work is to determine the effect of war on German commerce, the extent to which the economic system of the country can guarantee its preparedness as regards equipment, rations, &c., and, further, by a glance at their probable condition, to draw conclusions as to what precautionary methods should be taken during time of peace to ensure the maintenance of the normal, economic position.

Under the heading of "The War Crisis," the effect on the economic situation during three periods is dealt with. The three periods are:—

1. Directly before the expected declaration of war and during the mobilisation and concentration of the Army.
2. During the operations.
3. During the armistice and peace negotiations. The arguments are based on statistics during the Franco-German War, 1870-71.

The author then passes on to the discussion of the commerce of the German Empire, which takes the form of a general survey of the home resources and the extent to which the country is dependent on other nations. He devotes some pages to the production and sale of goods, entering into details, with statistics, as to the probable number of working hands available, the industries affected, the possibilities of trading inland and through neutral ports, the mercantile navy in general, and the means of coping with a blockade. This part is supplemented by a survey of the economic condition of some branches of German industry, dealing with the effect of war on the working of coal mines and on the iron, textile, and leather industries.

Under the heading of "German Agriculture in the case of War," he deals with the possibilities of maintaining the Army and the population during the period of hostilities. After a further discussion on the economy of food stuffs, in which he aims at distinguishing between dispensable and indispensable foods as regards human beings and animals, he concludes with the opinion that, owing to her independence from the import of raw products, Germany is in a position to maintain herself for a long period, independently of other countries, notwithstanding her large requirement of imported bread cereals. Owing to her great commercial position, the effect of hostilities would react in a greater degree on the economic systems of her enemies than on her own.

The Economic and Social Results of the Coming War (Les conséquences économiques et sociales de la prochaine guerre). By Captain Serrigny. 478 pp. 8vo. Paris, 1909. Giard and Brière. 8/4.

This book, as the author states, is intended to form a sequel to his previous work entitled "War and Economic Progress."¹ In that work he aimed at demonstrating that the great strides in commercial development made since the commencement of the 20th century have tended to increase the probabilities of war amongst the great Powers, and especially of war between France and Germany. He now discusses the results, both social and economic, which are likely to be produced by a second Franco-German war.

He divides his book into three parts, the first dealing with "the nation in arms," and the second and third treating respectively of the disorganisation arising during and after a great war.

In Part I. he seeks to prove that the principle of training every able-bodied male to assist in the defence of his country is fundamentally wrong. This is a point upon which he lays great stress throughout, and he adduces many arguments in furtherance of his contention. He asserts that the coming campaign will be won or lost in the first great battle, and that this battle will be fought within one month of mobilisation. From careful deductions, based on the number of routes available, he calculates that neither belligerent can possibly bring more than 1,500,000 men into action for this decisive engagement. Why, then, should either France or Germany attempt to put four or five million men into the field? The fate of France was decided on the slopes of St. Privat, and no further efforts on her part could influence the ultimate issue of the campaign. More than this, the calling out of men of the second line, and the consequent useless prolongation of the war resulted in a national loss at least equivalent to the indemnity which Germany demanded. Would it not, therefore, be preferable both from a strategic and financial point of view to limit the Army to a force of 1,500,000 picked men, the majority of whom would be professional soldiers?

Part II. contains an elaborate and careful study of the conditions of national life actually prevailing during campaigns of the past, with especial reference to that of 1870, and from this study are deduced the conditions likely to arise during the war which he regards as inevitable. Loss of life, destruction of property, dislocation of traffic, the crisis in credit, and industrial and financial disaster are all discussed in the fullest detail, trustworthy statistics being given in each instance. In conclusion, a chapter is devoted to the economic results of the 1870 war as regards neutral Powers.

In Part III. the points which claim the writer's chief attention are the results arising from the annexation of territory and the payment of war indemnities. As regards the former, he claims that Germany has benefited but little by the annexation of Alsace-Lorraine, and that the acquisition of some portion of France's Colonial possessions would have proved far more advantageous to her. With respect to the latter, he contends that the enormous indemnity paid by France after the 1870 war proved ultimately to be detrimental to German economic progress, and this contention he supports by quotations from German authorities.

The volume is one of more than ordinary interest to the student of political history, and as the majority of the statistical tables are given in footnotes, the reader can readily grasp the leading deductions without being overburdened by minutiae of detail.

Is Krupp's Monopoly Justifiable? (Ist die Monopolstellung Krupps berechtigt?) By H. V. Perbandt. 16 pp. 8vo. Berlin, 1909. Ernst. -/6.

This pamphlet is intended to prove that the monopoly enjoyed by Messrs. Krupp is not in accordance with the best interests of Germany. The author alleges that owing to the bureaucratic methods on which their vast business is conducted and to the security from competition and the political support which they enjoy, Messrs. Krupp are constantly behind the times as regards improvements in technique, and that Germany and other nations, in which they have a practical monopoly, have been put to great expense to adapt the material obtained from the Essen firm to the latest modern requirements. He quotes, among other instances, in support of his charges, the cases of the long recoil field gun and the independent line of sight. He also alleges that the material supplied for the German Navy by Messrs. Krupp costs the country more than it would if the contracts were open to competition.

CARLTON HOUSE, MARGARET STREET, LONDON, W.

A Warning to the Sons of Germany against the French Foreign Legion (Warnung an Germania's Söhne vor Frankreich's Fremdenlegion). By M. Gobel. 47 pp. 8vo. Minden, 1909. Hafeland. -/74.

This book is intended to discourage German conscripts who may be dissatisfied with their lot in the German Army from deserting to take service in the French Foreign Legion. The book contains a short account of the conditions of life in this corps, laying stress on the severity of the discipline. Then follow the personal experiences of a young German who, for love of adventure, ran away from home, enlisted in the Foreign Legion, and saw service in Morocco. He finally escaped to the German Consulate, and was given a passage home in a German steamer. The author hopes that the account of the hardships which he endured will dissuade any young Germans who may be tempted to follow his example.

The Airship Cruiser Spy (Der Luft Kreuzer Spion). By J. von Adlerskron. 213 pp. 8vo. Leipzig, 1909. Kummer's Verlag. 4/6.

In the preface the author tells us that the editing of these experiences of a French officer of the General Staff, employed on intelligence work in connection with airships in Germany, was confided to him by that officer himself when dying of consumption at Dares.

In an introductory chapter the author enters, in some detail, into the methods of espionage carried out by different States, and discusses the various classes of people employed in this service. He lays special stress on the class of information required and the ways and means of getting it. This chapter is perhaps the most interesting of the whole book.

The story itself describes the way in which the French officer is temporarily removed from active service; how he serves an apprenticeship at a wine merchant's in Bordeaux for three months with a view to carrying out his task in Germany under the guise of a travelling agent of the firm; the means he adopts for getting to know individuals connected with the balloon establishment at Tegel; his successful transactions with an assistant paymaster with regard to the purchase of secret information; his methods of securing secret plans of airships; and finally, his hurried departure from Berlin.

German South Africa during the twenty-five years of German Suzerainty (Deutsch-Südafrika im 25 Jahre Deutsche Schutzherrschaft). By Dr. W. Külz. 375 pp. 8vo. Berlin, 1909. Süsserott. 7/-.

Dr. Külz gives in these pages the story of the evolution of German South-West Africa. He describes the characteristics of the country, and enumerates its present commercial and political requirements. He is specially anxious to prove that the Protectorate is ripe for self-government, and endeavours to indicate on what lines this development should be brought about.

There is much useful information in Chapter II., which deals in detail with all the chief settlements in the Protectorate, and Chapter III. is interesting as giving the history of the Protectorate force. The administration of the country and the very considerable work done by the Missionary Societies are described in the two following chapters.

The concluding chapter deals at length with the resources of the Protectorate, its communications, agriculture, mines, commerce, coinage, and its future prospects.

The Colonisation of German East Africa (Die Besiedelung Deutsch-Ost Afrikas). By P. Samassa. 313 pp., with one sketch. 8vo. Leipzig, 1909. Deutsche Zukunft. 6/-.

This work deals with the various problems which beset the Colonist in German East Africa, and describes the resources, administration, and future prospects of the Protectorate. The author points out where, in his opinion, mistakes have been made in the past, and how the future commercial prosperity of the Protectorate may best be promoted. The final chapter deals with the colonisation of British East Africa. The author believes that much may be learnt from British methods, and states that "enterprise and the taste for bold undertakings is not yet defunct in the British race." He is, however, of opinion that Germans are superior to Englishmen in the matter of "industry, toughness, and frugality."

(To be continued.)

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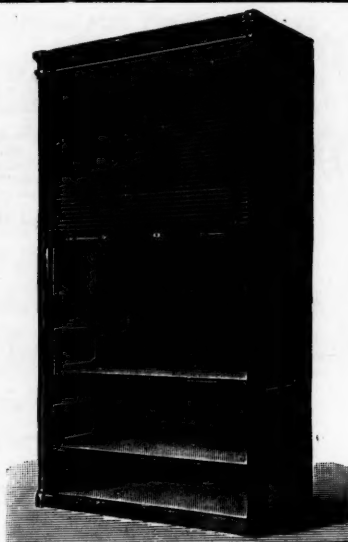
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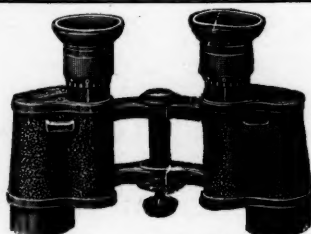
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" H. M. Durand, 9th Lancers.
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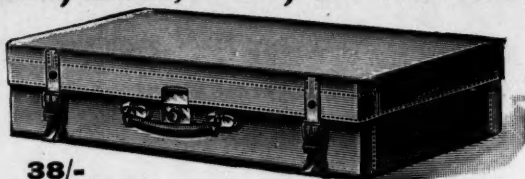
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